

JPRS-TEP-90-002  
7 FEBRUARY 1990



FOREIGN  
BROADCAST  
INFORMATION  
SERVICE

# ***JPRS Report***

## **Epidemiology**

**Reproduced From  
Best Available Copy**

REPRODUCED BY  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL TECHNICAL INFORMATION SERVICE  
SPRINGFIELD, VA. 22161

**19981123 087**

**DTIC QUALITY INSPECTED 3**

# Epidemiology

JPRS-TEP-90-002

## CONTENTS

7 February 1990

### SUB-SAHARAN AFRICA

#### ANGOLA

Cholera Cases in Luanda Province [Lisbon DIARIO DE NOTICIAS, 13 Dec 89] ..... 1

#### CAMEROON

Typhoid Endemic in North West Province  
[Martin A. Nkemngu; Yaounde CAMEROON TRIBUNE, 26 Sep 89] ..... 1

#### MAURITIUS

'Tenacious' Flu Epidemic [Port Louis LE MAURICIEN, 6 Jan 90] ..... 1  
Agriculture Sector in State of Alert ..... 2  
White Worm Threatens Crops [Jean-Marc Poche; Port Louis LE MAURICIEN 8 Dec 89] ..... 2  
Reunion Ships Banned ..... 3

#### NIGERIA

'Unidentified' Disease Kills Cattle in Katsina [Enugu DAILY STAR, 29 Oct 89] ..... 3

#### TANZANIA

Measures To Control Plague Termned Successful [Dar-es-Salaam DAILY NEWS, 24 Oct 89] ..... 3  
Winning War Against Mealy Bug  
[Pudenciana Temba; Dar-es-Salaam DAILY NEWS, 25 Oct 89] ..... 4

#### ZAMBIA

Kitwe Clinics: 10 Percent of Cases Malaria [Lusaka SUNDAY TIMES OF ZAMBIA, 5 Nov 89] .. 5  
Cholera Outbreak in Nsumbu; 36 Deaths in Mpulungu  
[Lusaka TIMES OF ZAMBIA, 13 Oct 89] ..... 5  
Ineffective Cholera Vaccine Imports Halted [Lusaka ZAMBIA DAILY MAIL, 6 Oct 89] ..... 6  
Four Measles Deaths in Siavonga District [Lusaka TIMES OF ZAMBIA, 28 Sep 89] ..... 6  
10 Children Die of Measles in Northern Province [Lusaka TIMES OF ZAMBIA, 5 Oct 89] ..... 6  
Rabies Outbreak in Lusaka; Measures Announced [Lusaka TIMES OF ZAMBIA, 19 Sep 89] ..... 6

#### CHINA

Traveller Is Sixth Case of Cholera [Hong Kong HONG KONG STANDARD, 26 Oct 89] ..... 7  
Jiangxi Governor Stresses Schistosomiasis Prevention  
[Si Yi; Nanchang Jiangxi Provincial Service, 29 Nov 89] ..... 7

#### EAST ASIA

#### LAOS

Malaria Rate in Bolikhamsai Province [Vientiane KPL 0904 GMT 18 Dec 89] ..... 8

## VIETNAM

Malaria Threat in Son La [Hanoi SUC KHOE No 19, 5 Oct 89]	8
Anti-Malaria Measures for Son La [Hanoi SUC KHOE No 19, 5 Oct 89]	8
Ha Bac Strengthens Anti-Malaria Work [Hanoi SUC KHOE No 19, 5 Oct 89]	9

## LATIN AMERICA

### HONDURAS

Measles Epidemic Kills 60 [San Pedro Sula TIEMPO, 13 Sep 89]	10
--	----

## NEAR EAST & SOUTH ASIA

### BANGLADESH

Heart Disease Number Three Killer in Nation [Dhaka THE NEW NATION, 14 Nov 89]	11
Stronger Fight Against Tuberculosis Urged [Dhaka THE NEW NATION, 13 Nov 89]	11
Shortcomings in Child Immunization Program Noted [Dhaka THE BANGLADESH OBSERVER, 3 Nov 89]	11
Filaria Stages Comeback; More Facilities Urged [Dhaka THE NEW NATION, 7 Oct 89]	12
Epidemic of Fish Disease Reported; Seriousness Noted [Dhaka THE BANGLADESH OBSERVER, 29 Nov 89]	12
Hazard to People [Dhaka THE BANGLADESH OBSERVER, 29 Nov 89]	12
Solution Efforts Urged [Dhaka THE BANGLADESH OBSERVER, 7 Dec 89]	13

### INDIA

Tuberculosis Control Program Fails To Reach Goal [Madras THE HINDU, 12 Dec 89]	13
Tuberculosis Still Number One Health Problem [Bombay THE TIMES OF INDIA, 20 Oct 89]	14
Encephalitis Outbreaks in West Bengal	14
200 Encephalitis Deaths [Calcutta THE STATESMAN, 20 Oct 89]	14
Encephalitis Claims 77 in Midnapore [Calcutta THE TELEGRAPH, 14 Oct 89]	14

### ISRAEL

Rabies Remains Unchecked [Tel Aviv YEDI'OT AHARONOT, 10 Sep 89]	14
Veterinarians Battle Rabies in Negev [Tamar Treblisi; Tel Aviv YEDI'OT AHARONOT, 20 Nov 89]	15

### MOROCCO

International Seminar on Locusts Held [Casablanca MAROC SOIR, 28 Nov 89]	15
--	----

### PAKISTAN

'Fool Proof' Health Care Policy Advocated [Karachi DAWN, 13 Oct 89]	16
Cancer Research Foundation Assumes Major Role [Lahore THE PAKISTAN TIMES, 3 Dec 89]	17
Health Care for Everyone Promised by Year 2000 [Karachi MORNING NEWS, 7 Dec 89]	17
Formula Suggested for Immunization Program Success [Karachi DAWN, 19 Nov 89]	18
Hazardous Use of Pesticides [Anwaar Sayyid; Lahore VIEWPOINT, 9 Nov 89]	18

### SUDAN

Health Ministry Reports Reduction in Infant Mortality [Khartoum AL-SUDAN AL-HADITH, 4 Nov 89]	21
---	----

## TUNISIA

Aphthous Fever Outbreak Prompts Vaccination Drive	<i>[Tunis LE RENOUVEAU, 10 Dec 89]</i>	22
Agricultural Ministry Communiqué	<i>[Tunis LA PRESSE DE TUNISIE, 10 Dec 89]</i>	23

## WEST EUROPE

### CANADA

British Flu Virus Affecting Ontarians		
<i>[Lisa Wright; Toronto THE TORONTO STAR, 15 Dec 89]</i>	24	
Seven BC Fisheries Closed Due to Poisons in Shellfish		
<i>[Murray Campbell; Toronto THE GLOBE AND MAIL, 24 Nov 89]</i>	24	
Rabies Cases in Windsor, Essex County at Record Levels		
<i>[Vernon Smith; Windsor THE WINDSOR STAR, 17 Nov 89]</i>	24	
Dioxin Count Rising in Fraser Heron Eggs	<i>[Glenn Bohn; Vancouver THE SUN, 13 Dec 89]</i>	25

### DENMARK

Greenland's Public Health System Critized	<i>[Nuuk GRONLANDSPOSTEN, 8 Nov 89]</i>	25
Vaccination Campaign Proposed in Greenland	<i>[Nuuk GRONLANDSPOSTEN, 10 Nov 89]</i>	26
Meningitis Spreading In West Zealand	<i>[Copenhagen BERLINGSKE TIDENDE, 13 Jan 90]</i>	26

### IRELAND

Europe Concerned Over Ireland's Bovine TB Record		
<i>[Dick Cross; Dublin IRISH INDEPENDENT, 14 Oct 89]</i>	27	

### NORWAY

Yearly Winter Influenza Outbreak Hits	<i>[Aslaug Bissegberg; Oslo AFTENPOSTEN, 12 Dec 89]</i>	27
Soldier's Death Attributed to Meningitis	<i>[Oslo AFTENPOSTEN, 15 Jan 90]</i>	27

### SPAIN

Hepatitis Seen as Major Health Problem	<i>[Madrid DIARIO 16, 1 Dec 89]</i>	28
--	-------------------------------------	----

### TURKEY

Hepatitis Epidemic in North, Southeast	<i>[Istanbul TER CUMAN, 6 Dec 89]</i>	28
--	---------------------------------------	----

### UNITED KINGDOM

Chief Medical Officer Presents Annual Report		
<i>[Peter Palott; London THE TELEGRAPH, 9 Nov 89]</i>	28	
Health Service Reports Increasing Patient Backlog		
<i>[Peter Palott; London THE DAILY TELEGRAPH, 21 Oct 89]</i>	29	
'Longstanding Illnesses' Reportedly on Increase		
<i>[London THE DAILY TELEGRAPH, 13 Dec 89]</i>	29	

## ANGOLA

### Cholera Cases in Luanda Province

90EF0134Z Lisbon *DIARIO DE NOTICIAS* in Portuguese 13 Dec 89 p 23

[Text] A total of 84 cases of cholera was recorded in Luanda Province, Angola, between 29 November and 5 December, ANGOP [Angolan Press Agency] has learned at a provincial Public Health office.

The villages hardest hit by cholera were those in Sambizanga, with 22 deaths per week, which represents a mortality rate on the order of 1.22 per 10,000 inhabitants.

According to the same source, the mortality rate from cholera in Luanda Province approximates 0.57 per 10,000.

Meanwhile, an announcement by the National Directorate for Public Health states that the cholera epidemic is breaking out again in Bengo Province, whereas in Uige the endemic situation is currently registering "low intensity."

A total of 4,913 cases of cholera were reported in Angola in May and June, resulting in over 100 deaths.

## CAMEROON

### Typhoid Endemic in North West Province

34000016D Yaounde *CAMEROON TRIBUNE* in English 26 Sep 89 p 14

[Article by Martin A. Nkemngu, chief permanent correspondent in Bamenda: "Typhoid-Like" Disease Grips Bamenda]

[Excerpts] Inhabitants of Bamenda can no longer hide their fear: a typhoid fever outbreak signalled in 1985 is already taking epidemic proportions. In the past few weeks, it has killed several people. [passage omitted]

Miss Christina Makam Iseh died last week in the Bamenda General Hospital at the prime age of 27. News of her death sent shock waves across the town like wild fire throwing many relatives and friends into painful mourning. Family sources said that typhoid was the cause of her death.

The death of youthful Miss Makam is only one of many untimely deaths which have hit Bamenda town within the past six months as a result of a "typhoid-like epidemic" which has become a major cause for concern for both the 100,000 town inhabitants and health authorities. Unconfirmed but usually reliable hospital sources say more than 10 deaths related to the disease have occurred in recent weeks in the hospital.

The problem first came to light in April this year when the town was under the spectre of a typhoid fever

epidemic but health authorities quickly denied that there was any such epidemic. Since then the number of patients complaining of what the doctors prefer to call a "typhoid-like" disease has continued to rise with some of them developing protracted complications while others, like Miss Makam, have even lost their lives.

The Delegate of Public Health for the North West Dr. Obed Nana has, however, admitted that the number of typhoid cases reported in the province has been going up since 1985. In 1985 the number of typhoid fever patients diagnosed in the province was 187 and in 1986 the number rose to 354. The authorities are reluctant to release more figures which are likely to be more alarming.

Reliable hospital sources also hinted that one ward alone had registered more than 400 cases within the first six months of this year.

Dr Nana will only confirm that "typhoid is endemic in the North West Province" but insisted that it had not attained an epidemic dimension.

It is also learned that water and blood samples have been taken to Institute Pasteur in Yaounde for more expert analysis but so far results are still awaited. In the meantime, the Provincial Chief of Preventive Medicine and Rural Health Services for the North West, Dr. Tempong Chi Andy, has said that general vaccination against typhoid cannot be carried out now because it has not been clearly determined what disease it is. While waiting for the results of the investigations he has cautioned the population to scrupulously obey the basic rules of hygiene and sanitation in order to curb the spread of the disease. [passage omitted]

## MAURITIUS

### 'Tenacious' Flu Epidemic

90WE0100A Port Louis *LE MAURICIEN* in French 6 Jan 90 p 4

[Unattributed Report: "Flu Epidemic Now Raging"; passages in slantlines published in English]

[Text] Doctor A.K. Purang, the /Chief Medical Officer/ (treatment department) confirmed it yesterday afternoon: He expects the current flu epidemic to be characterized by a high fever.

Many Mauritian families had unusual, to say the least, Christmas and New Year's parties. That is to say, [it was] far from the atmosphere of family holidays and [instead involved] acting as home nurses. According to Dr. Purang, children are especially vulnerable, but the virus, apparently not yet identified, is favored by the end-of-the-year climate, alternating between cold and hot. The humidity resulting from the heavy rains caused by the Alibera depression also has had an effect. According to the /Chief Medical Officer/ it is a known fact that a

cyclonic period is generally accompanied by ill effects, by cases of conjunctivitis (/disco eyes/), and influenza epidemics.

However, Dr. Purang also mentioned another possibility. According to the /Chief Medical Officer/, it is possible that the present epidemic may have been imported from European countries, where a particularly tenacious type of flu has raged for the past few months.

Dr. Purang was unable to provide official figures concerning the number of cases treated in the country's different hospitals, but he also confirmed to us that the figure is rather large, adding that the attacks of fever are sometimes also accompanied by diarrhea.

### Agriculture Sector in State of Alert

#### White Worm Threatens Crops

90EF0121A Port Louis LE MAURICIEN in French  
8 Dec 89 pp 1, 5

[Article by Jean-Marc Poche; editor's lead is "Mauritius Declared a Plant Disease Emergency Area"; passages within slantlines published in English]

[Text] The agricultural sector has been in a state of alert since this morning, after cockchafers and "Hopochelus Marginalis" white worm larva were discovered yesterday aboard the ship Le Monet. The minister of agriculture Madun Dulloo announced during a press conference at 1 o'clock today that Mauritius would be decreed a /Plant Disease Emergency Area/ this afternoon.

This regulation gives the minister full powers to order the inspection of any area by officers of his ministry and to seize and fumigate suspect plants.

A team of Mauritian technicians will be permanently delegated to Reunion to study the situation on the scene and to draw up a plan of action to prevent such situations from reoccurring.

White worms have, thus far, caused much damage to Reunion, where they proliferate in certain specific locations. All measures must, therefore, be taken to prevent the disease from reaching our shores, for it would be fatal to sugar production.

A series of preventive measures have consequently been enacted. The port has been declared a "strict quarantine area." A team of officers from the Ministry of Agriculture, backed by staff of MSIRI (Mauritius Sugar Industry Research Institute), will remain in the port area around the clock to monitor the situation closely.

All planes and ships coming from Reunion will be meticulously inspected. Moreover, planes that leave after dusk, that is after 6:30, will not be authorized to land in Mauritius. Cockchafers tend to fly at that time of the day.

The arrival of ships and yachts will be controlled in this way by coast guards.

The minister has asked the entire population to collaborate with the Ministry of Agriculture.

#### Adults

#### Appearance

- Cockchafer-type insect, with hard, oval body;
- dark brown in color with two yellowish areas near the front of the body behind the head.
- creamy white belly, six clawed feet.

#### Period of Flight

- Flights begin immediately after the first heavy rainfalls at the start of the rainy season (September-October in 1981).
- They take place regularly every evening. Cockchafers come out of the ground at dusk, fly for an hour, and then return to the ground.
- They are particularly attracted by light.

#### Precautions To Take

- Do not transport living adults.
- Voluntarily, if you wish to display it, kill it in alcohol at 90 degrees.
- Do a mandatory check to ensure that cars, trucks, and transported objects do not harbor cockchafers. Examples: vehicles parked near street lamps; vehicles crossing areas contaminated during flight.

#### Larva

- Eggs laid in the ground hatch starting in December. A very small larva (2-3 mm) comes out, which feeds on vegetable matter and roots and grows rapidly without leaving the top 20 centimeters of the soil.
- L2: Fifteen days later the larva measures 1.5 cm; it looks like a ringed, C-shaped, creamy white worm ("Zandette"). Its head is light brown and hard. This "white worm" has 6 long feet.
- L3: Third-stage larva look the same as those of L1 and L2, but are longer, up to 5 cm long. It is these larva who do the most damage, for they are the most voracious and live several months before becoming chrysalides in September.

#### Precautions

- Do not spread the larva.
- Do not transport soil, humus, fanjans, flower pots, etc., that may contain white worms from a contaminated area to other areas of the island.

### Reunion Ships Banned

90EF0121B Port Louis *LE MAURICIEN* in French  
9 Dec 89 p 7

[Article by Jean-Marc Poche; passages within slantlines published in English]

[Text] No ship hailing from Reunion will be authorized to approach Port-Louis until February of next year. This decision, announced by the minister of agriculture Madun Dalloo yesterday, is one of the principal measures taken to prevent Reunion white worms—a terrible agricultural scourge, especially for sugar cane—from reaching our shores. It was confirmed during the afternoon meeting of the coordinating committee.

Officials will ask that all ships scheduled to stop in Reunion before coming to Mauritius change their route by stopping in Mauritius first. In exceptional cases, coast guards will disinfect ships out at sea. Provisions have also been made for the airport, where all planes coming from Reunion will be painstakingly inspected. Moreover, /light traps/ have been installed in Plaisance in the port region, in Grand-Baie, Riviere-Noire, Baie-du-Tombeau, and Pointe-aux-Sables where yachts are normally anchored.

The entire island has been declared a /Plant Disease Emergency Zone/ by the minister of agriculture. This regulation gives him all necessary powers to act promptly should plants from Reunion be introduced into Mauritius.

It is the first time "Hopochelus marginalis fairmaire" white worms have been spotted in Mauritius. Technicians of the Ministry of Agriculture are confident that the pest was discovered in time.

White worms were discovered in Reunion in June of 1981.

Since then a plan to combat them, involving all agricultural organizations concerned and directed by a coordinating committee, has been gradually implemented. Despite efforts, experts believe that white worms will unfortunately continue to inhabit the area during the next few years. However, they believe the worms will gradually become less and less harmful.

### NIGERIA

'Unidentified' Disease Kills Cattle in Katsina  
54000012 Enugu *DAILY STAR* in English  
29 Oct 89 p 1

[Text] Sixteen cattle have so far been killed in Zangu local government area of Katsina State following an outbreak of an unidentified cattle disease currently ravaging the area, the News Agency of Nigeria (NAN) reports.

Briefing the State Commissioner for Agriculture, Alhaji Aminu Abdullahi, who was in the area to inspect the extent of drought that hit the area this year, the local government Sole Administrator, Alhaji Isa Ingawa, said that veterinary officials of the council could not identify the nature of the animal disease.

Alhaji Isa said that the local government was making its own efforts to contain the outbreak but appealed to the state government to intervene to avert its widespread.

He also attributed this year's drought to insufficient rainfall recorded in the villages of Sara, Yardjaji, Dankum and Babban-Mutum coupled with late arrivals of farm inputs especially fertiliser.

Responding, the commissioner said that the government had ordered drugs and vaccines worth N700,000 for distribution all over the state to check frequent outbreak of animal diseases.

He said that a more efficient method of fertiliser distribution in the state was being worked out, while a new agreement to transport 9,000 tonnes of fertiliser to the state had been reached.

The NAN correspondent reports that Zangu is the third local government area in the state where cattle diseases have been reported.

Reports from Faskari said that Contagious Bovine Pluro-Pneumonia (CBPP) have also killed five cattle.

### TANZANIA

Measures To Control Plague Termed Successful  
54000010a Dar-es-Salaam *DAILY NEWS* in English  
24 Oct 89 p 3

[Article "Hopes of Wiping Out Plague Increasing"]

[Text] Plague, a deadly disease which has claimed some 250 lives in Lushoto District, Tanga Region, has been intermittently on and off in the district during the last 10 years. However, SHIHATA staff writer Charles Nzo Mbaga, says there are firm indications showing that the disease is now on its way out.

After nearly 10 year of a battle against plague, a highly contagious epidemic that has so far killed about 250 people in Lushoto District, there are indications that the war is being won.

Medical workers in the district and in Tanga municipality are now optimistic, comfortably stating that the killer disease is on its way out of the district. It had hit some 41 villages.

Professor Bukhet Kilonzo of the Belgian/Tanzania Rodent Research Centre, based at the Sokoine University of Agriculture (SUA) in Morogoro, was first to hint on the success, telling a scientific seminar in Arusha recently that plague would be wiped out 'soon.'

Now another medical authority has added to his voice. Dr Jeremiah Jairo Kidenya, manager of the Permanent Plague Control Team (PPCT) which, for about 3 years now has been directing the war against the killer disease in Lushoto says there were indications pointing to victory. But he also says the battle could easily be lost if the existing cooperation between the PPCT and members of the public would not be maintained. Fleas have to be eliminated.

A flea is a small, wingless, blood-sucking insect which helps transmit plague from rats to human beings.

The deadly plague bacteria are biologically known as *Yersinia pestis*, they are normally spread among wild rodents by the fleas and confined to the rodents. But when domestic rats get infested and die from the infection the fleas leave the dead rats and infect human beings.

The disease presents itself mainly in two forms: Bubonic plague, which is characterized by high fever and swollen lymph nodes (bubos), and pneumonic plague which is characterized by fever, cough and breathlessness with the bacteria attacking the lungs. The latter type spreads rapidly from man to man through droplet infection.

Lushoto's most affected divisions were named as Mlola, Mlalo, and Mtæ.

Medical records in Tanga show that the plague first erupted in Nwela village in June 1983, killing 11 people. The following year nine cases were recorded with six deaths in one village.

In 1983 the epidemic killed 49 people in only 2 affected villages in Lushoto. In 1986 there were 360 cases, 57 deaths in 23 affected villages in the district.

As of 30 June 1987, some 709 cases had been recorded with 49 deaths. Up to August 1988 there were 647 cases with 33 deaths.

Ndugu Kilonzo, who for many years had conducted studies on plague and rodent control in general, says that studies made in the area 2 years ago had shown that two drugs permethrin and solfac were highly effective against fleas known as *xenopsylla brasiliensis*.

Dr Jairo Kidenya, who is also the Lushoto District Medical Officer (DMO) says residents are increasingly applying the research findings—each house in the district routinely applying various insecticides. Powders containing 1.5 percent dieldrin or 2 percent Aldrin which can easily kill all the fleas and remain active for up to 3 months, are also dumped into rat holes and the floors. Most houses in affected areas are also being sprayed with solfac powder.

Surveys conducted in some villages in Lushoto district have shown that an increasing number of people are to use pesticides which are effective in controlling many other arthropod vectors of disease like jiggars and bugs.

"This is why we think we are winning the war," says Dr Kidenya.

Public's positive response and an aggressive educational drive spearheaded by the PPCT have started to bear fruits: no single serious plague case has been reported in Lushoto so far this year, it is said.

For the 9 years January and February have usually been peak period for the epidemic, with more than 85 percent of plague victims dying during those months.

However, this year's "peak period" (January and February) have come and gone without any plague incident recorded and Dr Kidenya predicts: "the situation is likely to remain as it is throughout 1989."

If the situation will not change next year then "we have cause to celebrate," says Dr Kidenya, emphasising, however, that Lushoto residents "should go on with the fight against the fleas and rodents if the epidemic is to be wiped out once and for all."

Ministry of Health officials say that although the national goal from the beginning was to reduce the plague incidents to a "sporadic state," poor control measures and minimum public participation enabled the disease to persist for so long.

The ministry's chief epidemiologist, Dr Romanus N. Mkorenga, told a recent plague review workshop in Lushoto that strong cooperation between research institutions, Plague Control Team and members of the public was vital if the epidemic is to disappear completely in Lushoto.

### Winning War Against Mealy Bug

54000010b *Dar-es-Salaam DAILY NEWS* in English  
25 Oct 89 p 1

[Article by Pudenciana Temba: "War on Mealy Bug 'Going on Well'"]

[Text] The war against the cassava mealy bug, Black Sigatoka disease and destructive rats in different parts of the country, is going on well, the *DAILY NEWS* was told yesterday.

An official with the Ministry for Agriculture and Livestock Development said plant protection experts had been sent to Mwanza and Lindi, to combat the cassava mealy bug and rats, respectively.

On the cassava mealy bug, the official said wasps were being released in Mwanza Region where the bug outbreak is said to be serious.

This is the second time wasps are being distributed in Mwanza Region. Others were released early this year.

Other regions where the wasps have been released are Mara, Lindi, Mtwara, Ruvuma, Mbeya, Kigoma, Dar es Salaam and Coast.

The official said an assessment carried out in Coast and Dar es Salaam Regions on the effectiveness of the wasps showed that mealy bug infestation dropped as time went by.

Meanwhile, the official said that other experts were working with farmers and regional and district authorities in Lindi Region to eradicate destructive rats which are threatening food stocks.

She said the experts were using mouse traps and zinc-phoside chemicals to kill the rats.

In another development, the official said a ministry team was expected to carry out a survey early next month in Morogoro and Tanga regions on a banana disease known as Black Sigatoka.

She said other regions which had the Black Sigatoka disease were Dar es Salaam and Coast.

Experts were advising farmers on "cultural control methods" which were cheap and applicable, she said.

Farmers who had heeded the experts' advices had succeeded in wiping the disease out, she added.

## ZAMBIA

### Kitwe Clinics: 10 Percent of Cases Malaria

54000020a Lusaka SUNDAY TIMES OF ZAMBIA in English 5 Nov 89 p 7

[Text] Kitwe district council will need at least K2 million to reduce malaria through eradication of mosquitoes, medical officer of health Dr Mannuel Mfune said yesterday.

Dr Mfune said malaria represented about ten percent of all illnesses recorded at out-patient clinics in Kitwe.

Dr Mfune said the last time the council carried out a spraying exercise was five years ago because of lack of funds.

"We require at least K2 million to effectively carry out our programme. We have 110,000 rooms in Kitwe to spray but we don't have money to buy sufficient insecticides to do that," he said.

He however said recently the council secured a new malaria spray called ficam from Medical Stores in Lusaka to spray the homes.

"This programme should have taken off in October but because of non-arrival of the chemical from Lusaka we were unable to begin work. But I am happy to say that Medical Stores management has assured us that the insecticide will be sent soon," Dr Mfune said.

He said Kitwe had 35 dambos, including a stream near Parklands which needed to be cleared and doused with oil to kill mosquito larvae.

Dr Mfune thanked ZCCM [expansion unknown] for contributing most of the used oil to pour on stagnant water.

The doctor assured residents in and around Parklands not to worry about the mosquitoes from the Kitwe stream which he said did not carry the malaria parasite.

"The mosquito in this stream is all culex. All the same it is a nuisance because it disturbs people and for that it should be destroyed," he said.

The council was aware of the high incidence of malaria and it was doing all it could to contain the situation although the limiting factor was lack of money.

It would be a welcome idea if the community organised fund-raising ventures to raise money for anti-malaria chemicals.

"I know the Ndola business community did that. They raised the money which was given to the council to buy the drugs, Kitwe can do the same," he said.

### Cholera Outbreak in Nsumbu; 36 Deaths in Mpulungu

34000016B Lusaka TIMES OF ZAMBIA in English  
13 Oct 89 p 1

[Text] The Party and its Government has with immediate effect restricted movements of people to and from Nsumbu and Mpulungu cholera-infested areas to stop the spread of the killer disease.

The ban comes in the wake of another 15 new cases that have been recorded in the two areas since the beginning of this month and a new case that has been reported in Mbala for the first time raising fears of the possibility that the disease may spread further.

The latest outbreak brings the total number of cases so far recorded in both areas to 286 since January. But the number of deaths still stands at 36.

A Press statement released by the office of the Northern Province Member of the Central Committee Paramount Chief Chitimukulu yesterday, says the measures taken included the restrictions on traders from buying kapenta and other fish species from the affected areas until the situation improved.

"Traders will be allowed to pass through with the fish only on production of valid documents from relevant authorities certifying that the commodity has been examined and found fit for human consumption," says the statement.

To facilitate this move, vehicles loaded with kapenta will only be allowed to operate between 08.00 hours and 18.00 hours to ensure measures were properly enforced.

**Ineffective Cholera Vaccine Imports Halted**  
*54000020c Lusaka ZAMBIA DAILY MAIL in English*  
*6 Oct 89 p 5*

[Excerpt] Government hospitals have stopped ordering cholera vaccine because the drug does not prevent the spread of the disease, deputy director of medical services, Dr Sam Nyaywa, disclosed yesterday.

Commenting on shortage of the vaccine in most government hospitals and clinics, Dr Nyaywa said apart from not being preventive, the duration of the drug after a person had received it was only four to six months.

"In Zambia cholera has been contained and government can therefore not afford to spend foreign exchange on a drug which will not be of any use," Dr Nyaywa said.

He advised people travelling to countries where cholera vaccination was required to go to private surgeries who had such a facility.

In February this year, 15 people died from cholera in Mbala and Kaputa areas while the disease claimed 29 lives in Mpulungu and Sumbu areas in June.

And Permanent Secretary for Northern Province James Mtonga, then said the disease was far from being eradicated because of transport problems the medical team faced. [passages omitted]

**Four Measles Deaths in Siavonga District**  
*54000020b Lusaka TIMES OF ZAMBIA in English*  
*28 Sep 89 p 1*

[Excerpt] Four children have died in an outbreak of measles that has hit Siavonga district, district medical officer Dr Julia Mooreman said in an interview yesterday.

The outbreak struck four weeks ago claiming four lives of children under one year.

"We have 17 cases so far under observation and we have managed to immunise 5,000 children aged between eight months and 15 years," she said.

Dr Mooreman said despite the launching of the universal child immunisation (UCI) project in the area, most of the children had not been vaccinated because of lack of transport. [passages omitted]

**10 Children Die of Measles in Northern Province**  
*34000016C Lusaka TIMES OF ZAMBIA in English*  
*5 Oct 89 p 7*

[Excerpt] Ten children died last month in the Chilufya area of Kasama's Musowa ward after a measles outbreak, Northern Province medical officer Dr Albert Sitali said yesterday.

Dr Sitali told a universal child immunisation (UCI) provincial committee meeting that 33 children were attacked by the killer disease from mid September to the end of the month but 23 were saved after medical teams rushed there.

He told the meeting, chaired by provincial political secretary Cde Josiah Kanyuka there were sporadic occurrences of the disease in other parts of Zambia as well. [passage omitted]

**Rabies Outbreak in Lusaka; Measures Announced**  
*54000020d Lusaka TIMES OF ZAMBIA in English*  
*19 Sep 89 p 7*

[Text] There is an outbreak of rabies in Lusaka and the department of veterinary and tsetse control services has directed all animals of the canine species be secured.

A Gazette notice says an area within 25km radius centred at Lusaka main post office should be declared a rabies infected area.

"All animals of the canine species are to be secured in accordance with the Control of Dogs Regulations, Cap 381, of the Laws of Zambia."

### Traveller Is Sixth Case of Cholera

54004055 Hong Kong *HONG KONG STANDARD* in English 26 Oct 89 p 5

[Text] Another cholera case has been confirmed by the Department of Health, the sixth involving a Hong Kong resident this year.

Of the six, three were classified of local origin and the others imported.

In the latest case 57-year-old Mr Lee Ming-chung returned to Hong Kong on October 18 after a trip to China and fell ill the same day.

He had diarrhoea and sought private treatment. He was sent to the Princess Margaret Hospital where he was admitted. Yesterday his condition was described as satisfactory.

A Department of Health spokesman said tests confirmed Mr Lee was suffering from cholera *el tor*, and since he had travelled outside Hong Kong, the case was classified as imported.

Despite cold weather, officials said people should keep strict personal, food and hygiene habits to avoid cholera.

### Jiangxi Governor Stresses Schistosomiasis Prevention

54004805 Nanchang *Jiangxi Provincial Service* in Mandarin 1100 GMT 29 Nov 89

[Reported by station reporter Si Yi]

[Text] Governor Wu Guanzheng addressed a planning work forum of 13 counties in the Poyang Hu lakeside area this morning. He said: The provincial government will pay close attention to the prevention of schistosomiasis for the next 3 years no matter how busy the agenda of the work in other areas.

In order to implement General Secretary Jiang Zemin's instruction on the work to prevent schistosomiasis, the central authorities have decided to hold a conference on schistosomiasis prevention in five southern provinces in

the near future in Jiangxi. Trying to take this opportunity to start a new upsurge in schistosomiasis prevention, the provincial government's leading group on prevention of schistosomiasis and other endemic diseases immediately summoned county and district heads of the 13 counties and districts in the Poyang Hu lakeside area, where schistosomiasis has not been brought under control, to discuss specific measures for schistosomiasis prevention. Wu Guanzheng and Chen Guizun attended the forum, which was chaired by Jiang Guozhen, deputy secretary general of the provincial government.

Governor Wu Guanzheng stressed: All counties and districts should, in conjunction with a comprehensive campaign to win a bumper agricultural harvest, work out a unified plan for schistosomiasis prevention. They should regard the work as the focal point of construction of irrigation facilities on farmland and an effective measure to help the people in the lakeside area to eliminate poverty and become well off. Efforts should be made to ensure a good job in schistosomiasis prevention because in order to become prosperous, it is necessary to first cure the disease. People inflicted with schistosomiasis should be given proper diagnosis and treatment. From now on, we should extensively mobilize the masses to eradicate the disease and successfully carry out the patriotic health campaign so as to ensure healthy environmental hygiene. At the same time, in continuing to solve the problem of supplying drinking water to the people, it is necessary to allocate special funds for engineering projects to improve water quality.

Wu Guanzheng also called for steadfast implementation of the policy on family planning in the area inflicted by schistosomiasis. It is necessary to vigorously publicize and educate the masses in the necessity to eradicate unscientific, unhealthy habits in everyday life.

At the same time, Wu Guanzheng urged the relevant departments to show concern for comrades engaged in schistosomiasis prevention work and help them solve practical problems. It is necessary to improve schistosomiasis prevention organizations for promoting the work.

Vice Governor Chen Guizun spoke on the situation and tasks of schistosomiasis prevention, and outlined concrete arrangements for the work this winter and next spring.

**LAOS****Malaria Rate in Bolikhamsai Province**

*BK1812110689 Vientiane KPL in English 0904 GMT 18 Dec 89*

[Text] 1,400 in every 12,000 people in the central Bolikhamsai Province were recently found positive to malaria, accounting for some 10 percent of the total population in the province, according to the medical statistics of Bolikhamsai.

Thanks to the close attention of local medical personnel, the rate has plunged down and is lower than that of last year.

Now Bolikhamsai has 57 infirmaries and 25 clinics at village and district level.

**VIETNAM****Malaria Threat in Son La**

*90WE0064A Hanoi SUC KHOE in Vietnamese No 19, 5 Oct 89 p 7*

[Text] Recently, SON LA printed an article by Cao Minh Chau entitled "Malaria—An Urgent Call for Help" (SON LA, issue No 2030, August 1989). According to the article, the malaria situation in Son La is becoming more and more serious.

"Last year, there were 18 malaria epidemics that affected every district in the province. Almost 4,000 people contracted the disease, and 105 people died. Everyone remembers this very vividly. The 18 outbreaks of malaria finally ended, but the danger of another outbreak poses a daily threat.

"During the first 4 months of this year, in Song Ma and Moc Chau districts alone, six people died of malaria. In Bac Yen, 367 people had a high fever. Of these, 143 were given blood tests and 44, or almost 30 percent, tested positive for malaria. The percentage testing positive for malaria has increased greatly every year since 1986. There have also been malaria outbreaks in Huoi Pha District, in Pha and Ca Nang villages in Quynh Nhai District, and in a number of villages situated along the Da River in Phu Yen District.

"The public health sector, particularly the province's malaria prevention stations and the network of disease prevention stations in the districts and villages have made a great effort to spray almost 10 tons of DDT in 30 villages in the epidemic zones. Seven-day training classes have been opened for 15 technical cadres. Groups of cadres have been sent into the affected areas, and together with the people, they have demarcated the areas and implemented measures to control the malaria epidemics. With the exception of Moc Chau District, which has invested 2 million dong, and Song Ma, Muong La,

and Thuan Chau districts, which have each invested 1 million dong, none of the other districts have allocated funds to purchase malaria-prevention medicines. At the same time, the Joint Pharmaceutical Enterprise has purchased 13 million dong worth of anti-malaria medicines. Thus, there is medicine in the storehouses, but the people don't have any medicine to use.

"The provincial anti-malaria stations are the units that specialize in preventing and controlling outbreaks of malaria for the entire province. But the buildings are in a state of disrepair and need to be rebuilt. The six microscopes belonging to the stations have not been fit for use for 5-7 years. They do not focus properly and do not give a clear picture. The planning station has requested 25 million dong to purchase medicine and materials and has organized campaigns to go to the bases. But during the first 4 months of this year, only 1.5 million dong has been allocated to summarize things, open training classes, and purchase a little gasoline. The station has economized as much as possible in order to organize short-term work campaigns in the districts.

"In the epidemic zones, which are old pockets of contagion where malaria has not been thoroughly eradicated, when malarial parasites were first found, it turned out that chloroquine was not available. The people had to wait to be treated with the drug fansidar. But this drug is very expensive, and the people who live in the highlands areas are very poor. They didn't have anything to sell during the preharvest lean period in order to obtain money to purchase this drug.

This is a very sad situation. Unless the central echelon, localities, echelons, sectors, and all the people take urgent action to implement effective and timely measures to help the public health sector end the malaria epidemic, this disease will spread rapidly throughout the province."

The above shows that malaria poses a great threat to the health and lives of the people in the province. The public health sector and the Malaria Institute should give special attention to this situation.

**Anti-Malaria Measures for Son La**

*90WE0064B Hanoi SUC KHOE in Vietnamese No 19, 5 Oct 89 p 7*

[Text] In recent months, major epidemics have broken out in many districts in the province. There have been outbreaks of malaria, dysentery, and viral hepatitis. This has had a serious effect on the health of the people.

During the first 4 months of the year, almost 7,000 people contracted malaria. Of these, 0.6 percent had acute malaria, and 1.8 percent of these died. During the outbreaks in May in Hua Pang Village in Moc Chau District and Chien Ngam Village in Thuan Chau District, 509 people came down with malaria. Of these, 27 had acute malaria, and 4 died. Malarial parasites were

found in 2.2 percent of the 18,000 blood samples taken. In June, of the 600 people tested, 2.7 percent were found to have malarial parasites. The districts affected the most are Song Ma, Moc Chau, Thuan Chau, and Quynh Nhai.

Besides malaria, dysentery has spread to all seven villages in Thuan Chau District: Chieng Ly, Chieng So, Chieng Muon, Chieng Bang, Chieng Xom, Pung Tra, and the town. It is also prevalent in Muong Chanh Village in Mai Son District. More than 1,100 people have come down with dysentery, and 4 people have died. Viral hepatitis is spreading at the Thuan Chau Higher Teachers School and at the Na Hang coal mine in Thuan Chau. To date, 45 people have come down with this disease.

Faced with the threat of these diseases, the public health sector has sent many technical cadres to the affected places to work with the bases in looking for ways to halt the spread of the diseases and treat the sick. In July, the central echelon allotted an additional 30 tons of insecticide. The province has taken 50 million dong from the budget for malaria prevention and control work.

**Ha Bac Strengthens Anti-Malaria Work**  
*90WE0064C Hanoi SUC KHOE in Vietnamese*  
*No 19, 5 Oct 89 p 7*

[Text] The Ha Bac provincial public health sector is promoting an anti-malaria program in the province. Special attention is being given to the key malaria zones and four mountain districts, that is, Son Dong, Luc Ngan, Luc Nam, and Yen Tho.

Along with taking blood samples and examining the sick, the provincial malaria stations have sent cadres to the old pockets of contagion to prepare files to manage those who are sick. The public health cadres are encouraging the people to use mosquito nets, clear away the weeds around their houses, and kill mosquitoes and mosquito larvae.

As a result of the active measures taken to prevent and control malaria, the number of people with malarial parasites has declined greatly as compared with before. However, in Son Dong and Luc Nhan districts, where people are mining for gold, there have been serious outbreaks of malaria. The Ha Bac public health sector has not been able to manage all the patients or control the spread of this disease.

## HONDURAS

### Measles Epidemic Kills 60

90WE0008 *San Pedro Sula TIEMPO in Spanish*  
13 Sep 89 p 5

[Text] So far the measles epidemic has caused 60 deaths and has affected a total of 3,220 people throughout the country, primarily in the metropolitan region and the department of Olancho, reported authorities of the Maternal-Infant Division of the Health Ministry yesterday.

The epidemic, which for several months has been attacking the infant population, particularly those under

1 year of age, has not been totally controlled by health authorities, despite the intensive vaccination campaigns that are being waged.

Most of the victims are children under the age of 1 year. So far, 27 are in that age group, 17 between the ages of 1 and 4, and the others over 5 years of age.

The data compiled by the Maternal-Infant Division cover the period up to 9 September, and officials do not discount the possibility of other cases that have not been reported.

In addition, health authorities stated that the epidemic has subsided considerably, as the number of reported cases has declined in recent weeks.

## BANGLADESH

### Heart Disease Number Three Killer in Nation

54500045 Dhaka *THE NEW NATION* in English  
14 Nov 89 p 5

[Text] Cases of heart disease are increasing day by day. Deaths from coronary thrombosis or cardiac arrest are taking place with disquieting frequency, so much so that heart disease has become killer number three after diarrhoeal diseases and tuberculosis in that order.

As against the ever rising incidence of coronary diseases there is only one hospital for specialised treatment of the disease, namely, the Suhrawardy Hospital. And the attention of this hospital is divided between heart diseases and eye diseases. The projected development of the Suhrawardy complex into a full fledged heart institute is yet to be a reality. Even so, this lone hospital for heart diseases is beyond the reach of people living outside Dhaka. The time factor which is a very important factor in heart troubles makes it almost inaccessible to people of mofussil areas.

In such a backdrop the report appearing in a Bengali daily that the government has decided to set up coronary care units in 10 medical college hospitals of the country is really heartening. But this step, though laudable, is not enough to cope with the demand for treatment of coronary and cardiac troubles which have many forms and varieties often of a very complex nature calling for quick attention. As such, coronary care units should also be set up in each district hospital phase by phase. Admittedly all this will require a sizeable investment. But at the same time it is to be borne in mind that such investment is well worth making considering the importance of saving the heart which is almost coterminous with living.

Side by side with expansion of facilities of treatment people should be educated through publicity media about the causes and cure of this fatal disease. Hypertension, high cholesterol level in the blood, rheumatic fever, social, political and economic restlessness, tension, lack of a spiritual mooring and sense of alienation both from nature and society which are the attendant ills of increasing sophistication and hectic pace of life are among the factors responsible for ever increasing incidence of diseases of the heart. Betterment of the socio-economic conditions of the people, removal of political constrictions, fat-free diet, a close-to-nature life style with moderate physical exercise and making peace with one's own self and with nature and its Maker are some of the steps that can help arrest the rising incidence of diseases of the heart, which has reasons of its own which the head does not know, it is said and rightly so. As such the preventive aspect needs as much attention as the curative one in keeping this vital organ beating properly.

### Stronger Fight Against Tuberculosis Urged

54500046 Dhaka *THE NEW NATION* in English  
13 Nov 89 p 5

[Text] There is no room for speculation on the question as to which is the top killer disease in Bangladesh. The answer to that can be found by applying as much as a speck of common sense. But there is no need even for that. By universal experience, diarrhoea or the broad range of gastro-intestinal diseases including cholera takes the biggest toll of life every year in this country.

But the next worse killer? It will be hard to divine a correct answer. Believe it or not, it is our dear old dread harking from a hoary past of thousands of years that continues to be as effective as ever in eliminating sizable parts of humanity. Tuberculosis holds an incredible sway on the life of the Bangladesh people, the phenomenal advances in the sciences and therapy in modern times notwithstanding.

A recent survey by our national organisation for control of tuberculosis contains a number of startling figures. About 80 thousand people die of TB every year. And every year there are 150 thousand TB victims. They add to a cumulative figure of 55 lakh TB afflicted people who are slogging on to a death that is now a hundred percent avoidable. Why do we say that? The survey reveals that only about 35 percent of the diseased persons get a modicum of treatment. The remaining 65 percent remain outside this net. And who doesn't know effective TB treatment is only partly a matter of medication and is mostly a matter of care and good and hygienic living? How many from among the fortunate 35 percent can afford this better and more important part of treatment?

Here is one disease with an established correlation with poverty. Some time past it was thought that the diseases malaria, leprosy and tuberculosis had been completely eradicated from this land—perhaps again to return. There were good reasons for being so euphoric. One was radical therapeutic and pharmacological advancement. And another—very effective and successful control activity.

And lo! All three are back here. And with a vengeance. How could that happen? Well, poverty has been always with us to beckon them back. But what happened to control activity? Evidently there has been a slackening there. This must be mended if we are earnest in our protestations of avoiding avoidable deaths—particularly those due to wholly curable diseases like TB.

### Shortcomings in Child Immunization Program Noted

54500047 Dhaka *THE BANGLADESH OBSERVER* in English 3 Nov 89 p 5

[Text] Every year, more than two lakh children die of the six killer diseases—diphtheria, polio, tetanus, tuberculosis, measles and whooping cough—because of lack of immunisation in time. There is no doubt that there has

been a growing awareness of the need of EPI for children in recent years and the demand for vaccines has trebled now as most of the Third World countries have moved towards the United Nations' goal of Universal Immunisation by the year 1990.

According to a statement of the Bangladesh Government and UNICEF Joint Consultative group marking the 10th Anniversary of the International Children's year, 30 percent of the children in Bangladesh have been immunized so far. Although the Government had formulated two five-year plans with lofty goals which could not be achieved due to recurrent natural disasters that visited the country one after another.

There is no doubt that unlike urban areas, the remote areas of the country are yet to get full benefit of the child immunisation programme. Some NGOs, both national and international, have taken intensive programme in this direction. Both medical and para-medical services are being provided by them free of cost or on nominal charges. But it is still a long way to go to achieve a 100 percent success both in matters of integrated family planning and child immunisation programme.

UNICEF is doing a lot to popularise the programme in the country. Meantime, they also brought goodwill ambassadors, the two stalwarts—the world renowned cricketer Imran Khan and Oscar winning film star Audrey Hepburn—to popularise the immunisation programme for children in Bangladesh.

But the question remains whether a drastic improvement in child-health and control of child mortality would exacerbate the population explosion problem. Much will depend on the parents themselves. For no country has ever achieved a significant fall in its birth rates without first achieving fall in its infant and child death rates. So much will depend on the well-being of today's children for tomorrow's world.

#### Filaria Stages Comeback; More Facilities Urged

54500035 Dhaka *THE NEW NATION* in English  
7 Oct 89 p 5

[Text] The rapid spread of Filaria in certain areas of the country has created a fresh emergency in the health sector. Reports indicate that over the last one year the number of Filaria patients in the northern region, especially in Thakurgaon, has increased dangerously. A survey conducted on one village of Thakurgaon has revealed that 16 percent of the people are afflicted with the disease. There is no facility for treatment and the victims who are mostly poor are seeking the help of quacks. If treated properly at the initial stage Filaria is cured but if neglected or mishandled it can turn serious. Thousands of victims run the risk of becoming permanently invalid as the necessary medical help is not reaching them. In 1967 with WHO's help a Filaria research institute was established at Thakurgaon, but it ran into trouble and ceased to function after 1972.

Filaria is carried by mosquitoes. Swollen feet and loss of energy are the first symptoms. To protect public health from the growing menace of Malaria and Filaria mosquito eradication campaign must be intensified. The source of Filaria must be eliminated. Filaria, like Malaria, had been fairly conquered. Like Malaria it is staging a come-back. This is not unexpected when mosquito eradication programme falters. The outbreak of Filaria has only lent a fresh urgency to the question of ridding the country of mosquitoes. But curative measures should go hand in hand with preventive ones. As Filaria had not been a common disease for many years the young doctors do not have much experience of dealing with it and the older doctors are not in touch with it. It would have been a fortunate thing if the Filaria Institute had outlived its necessity. Since that is not the case, the Institute should be revived speedily. In the meantime, treatment facilities in the affected regions should be expanded and a public education programme undertaken. This is one area in which the NGOs can prove their utility.

#### Epidemic of Fish Disease Reported; Seriousness Noted

##### Hazard to People

54500044 Dhaka *THE BANGLADESH OBSERVER* in English 29 Nov 89 p 9

[Text] Fish disease has broken out in an epidemic form in Chalan Beel area under Natore district, reports BSS.

Official sources said hundreds of shoil, magur, puti, gorai, tengra, boal and singi fishes died in the Chalan Beel area for the last several days. The cause of the disease could not be ascertained by the Fisheries Department. Officials said that ulcerative syndrome might be the cause of the fish disease.

Eyewitnesses said the flesh of the dead fish becomes separated. Bad smell poses health hazard for the people.

Meanwhile, over 50 percent beel area and ponds of the upazilas have been affected by the fish disease. Several people have also fallen sick after eating the diseased fish, the eyewitnesses said.

When contacted the Fisheries Department confirmed the report and said fish disease has also broken out in Dinajpur, Rangpur, Bogra, Pabna, Thakurgaon, Nilphamari, Panchagarh and some parts of Rajshahi district.

The officials said the fish in khals, beels and rivers have been affected by the disease.

The affected villages are Munsibasbaria, Dhania, Sona-apatil, Teroil, Salma, Bonkuri, Satpukuria and Dhania Union of Singra upazila.

### Solution Efforts Urged

54500044 Dhaka *THE BANGLADESH OBSERVER* in English 7 Dec 89 p 5

[Text] The newspapers have again been publishing reports on fish epidemics in different areas of Bangladesh. These reports indicate that the same disease known as 'ulcerative syndrome,' that hit the country for the first time in the early part of last year, has emerged with renewed vengeance after having lain low for some time. The disease has never left the country belying the earlier hope of some experts that monsoon showers would wipe it off the face of Bangladesh.

This new disease has already created a tremendous negative impact on the fish stocks in ponds and rivers in many a part of the country. Many of the ponds have reportedly been virtually emptied of fish. It is reported that application of lime and potassium on the advice of the Fisheries Department has had little or no beneficial effects.

Over the decades fish stocks in the country have dwindled because of various factors such as the indiscriminate catching of fish and fish fry and pollution of the waterbodies by pesticides washed off the fields and industrial wastes. The ulcerative syndrome which is fatal by nature has only aggravated the situation. We wonder if the authorities have taken a serious note of the situation that has arisen from the disease which has been taking a heavy toll since its start. It seems the authorities have given up the fight against the disease. True, the disease is new in this country but we can learn how to tackle it from the experience of other countries that have known it.

We expect the experts to put their heads together and find a means to tackle the situation before it is too late. We simply cannot allow our waterbodies to be denuded of fish which is the poor man's protein. If deemed fit foreign experts can be invited to come and observe the situation and suggest remedies. It is said a virus is at the root of the ulcerative syndrome. Maybe there has been some deterioration of the environment in the ponds and rivers to the advantage of the virus. Of course, it is for the experts to ascertain whether any environmental factor has been helping the virus to prosper at the cost of our fish resource.

### INDIA

#### Tuberculosis Control Program Fails To Reach Goal

54500043A Madras *THE HINDU* in English 12 Dec 89 p 3

[Excerpts] At a joint conference on tuberculosis and chest diseases, which opened here today, its president, Prof K. Jagannath, said despite best efforts in the last 30 years, the national tuberculosis control programme has not made any "deep dent" in the country.

"Looking at the achievements in the many years of our conducting the programme, we have to heave a sigh of desperation that the goal is still farther away and wonder whether ultimately it would prove to be a mirage," he said.

The prevalence rate of tuberculosis, he said, had remained at two percent of the population. And there had been an additional patient load of 50 laks in the last 30 years. "It would indeed be a hypothetical rationalisation, if one should venture a stand that the national tuberculosis programme has effectively restrained the magnitude of the disease at the two percent level, which otherwise would have leapt upto much higher figures." For a very specific assessment, a second sample survey was quite necessary and it should be more specific in nature and coverage.

Dr Jagannath said the whole programme should be activated "from its being merely passive, by liberally applying the latest innovations."

In his view, the integration of the control programme with the general health services at the service delivery end has rendered it "more horizontal" and it suffers from various limitations. "This should change and the national programme should be vertical and free of any retrograding force." [Passage omitted]

Prof S. K. Jain, president, National College of Chest Physicians, said chest diseases had not received the right kind of priority. He was sorry that the importance of chest diseases had not been sufficiently realised. In addition to people suffering from tuberculosis, there were about three or four percent of the population with chronic lung diseases, asthma, bronchitis and acute chest infections. Chronic lung diseases would result in disability and economic losses. Many of these diseases were preventable and curable. Besides creating an awareness on factors like smoking which aggravated various chest problems, he said the institutions involved in dealing with chest diseases should be given greater support.

Dr (Mrs) Lalitha Kameswaran, Vice-Chancellor, Dr M. G. R. Medical University, said the achievements in the control of tuberculosis had been below the expectations every year. Attributing the primary infection to inadequate personal hygiene of individuals and environmental cleanliness, she said whenever there was breakdown of resistance the infection manifested itself as a terrible disease. Though the cause of the disease was known "we are not in a position to confidently say that we will eradicate the disease by the end of the century".

'A Big Gap': The Health Minister, Dr Ponmudi, who inaugurated the conference, said there appeared to be a big gap between the achievement and the statistics reeled out in health care. There was a need for greater health consciousness among people. Preventive aspects of tuberculosis should receive greater attention, as most of the people suffering from the disease were not inclined for long and continuous treatment.

Releasing a souvenir brought out on the occasion, Dr M. G. Muthukumaraswami, Director of Primary Health Care, said there should be greater central assistance for tuberculosis control programme.

The Minister also inaugurated a free TB clinic sponsored by the Tamil Nadu Anti-TB Association. Lupin Laboratories presented tuberculosis drugs for distribution at the new clinic.

Mr. V. K. Vijayan, joint organising secretary of the conference, organised jointly by the Tuberculosis Association of India, National College of Chest Physicians, Anti-TB Association of Tamil Nadu and the National College of Chest Physicians (Southern Chapter), proposed a vote of thanks.

#### Tuberculosis Still Number One Health Problem

54500028 Bombay *THE TIMES OF INDIA* in English  
20 Oct 89 p 7

[Text] Even though spectacular and almost revolutionary advances have been made in the treatment of TB patients in recent years, tuberculosis continues to be the number one public health problem in the country accounting for over 16 million people suffering from this wasting disease, Mr Brahmananda Reddy, governor of Maharashtra, said today.

Inaugurating the 40th Tuberculosis Seal Sales campaign organised by the Maharashtra State Anti-Tuberculosis Association at Raj Bhavan, this morning, he pointed out that the phenomenal growth in our population, the mushrooming of slums with sub-standard living conditions in our cities, lack of proper housing and sanitation facilities and malnutrition had all contributed to the growing incidence of TB. The governor said that a poor country like ours could ill-afford the colossal national loss in terms of man hours and production caused by this disease.

The governor appealed to the people of Maharashtra to purchase the TB Seals in large numbers and thus contribute their mite to fight this dreaded disease.

#### Encephalitis Outbreaks in West Bengal

##### 200 Encephalitis Deaths

54500029 Calcutta *THE STATESMAN* in English  
20 Oct 89 p 3

[Text] There has been an alarming rise in encephalitis cases in some districts of South Bengal, according to reports reaching the State Health department. An official of the department said on Thursday at Writers' Buildings in Calcutta that a total of 266 persons had died from the disease in different districts this year, and about 900 people had been affected. More than 200 deaths were reported between September and October.

It was learnt that the disease was spreading to new areas in Burdwan, Midnapore, West Dinajpur, Bankura and

Birbhum districts. Experts had already been sent to the affected areas and the district authorities had been asked to open special wards in the hospital. Additional doctors and medicine were also being sanctioned.

#### Encephalitis Claims 77 in Midnapore

54500029 Calcutta *THE TELEGRAPH* in English  
14 Oct 89 p 2

[Text] Seventy seven persons have died so far of encephalitis in Midnapore and neighbouring villages, according to official sources.

Mr Kamakshya Ghosh, M.A. Midnapore, has sent an SOS to the state health minister Mr Prasanta Sur, requesting him to send medicines and a team of doctors for the proper treatment of patients. He alleged that the district health authorities were indifferent to the serious problem.

Patients from Midnapore town and from Panchra, Panchkuri, Sakuti and Siromoni were being admitted daily in the district hospital. So far there were 228 patients.

As most of the doctors are on leave during the Puja, the district health authorities are trying to manage the situation by bringing in more nurses from primary health centres.

#### ISRAEL

##### Rabies Remains Unchecked

54004502A Tel Aviv *YEDI'OT AHARONOT* Magazine  
in Hebrew 10 Sep 89 p 18

[Interview with Tommy Sade, chief veterinarian of Jerusalem municipality, by Gid'on Reiker; date, place not given]

[Text] **YEDI'OT AHARONOT:** Why haven't we eradicated rabies yet?

**Sade:** Because we have not been able, as in Switzerland, to immunize foxes, who are the source of the disease. In Switzerland, they overcame rabies after succeeding in immunizing the wild animals which were spreading it. We wanted to immunize foxes by means of lures, but we have not yet succeeded in doing so. Foxes feed on garbage dumps and bird carcasses which farmers throw over the fence, and they pass the disease to roaming dogs. This is a serious problem. In the enlightened world, every dog owner keeps his pet on a leash and knows where it is. Where we are, many owners let their dogs run wild and they are bitten by foxes and spread their terrible disease.

**[YEDI'OT AHARONOT:** The disease is scary and dangerous and visits us almost every year. How do you explain the fact that dog owners aren't guarding against it?

**Sade:** Only when there is an outbreak of rabies do they remember and are careful. But each year we start from scratch. I think that people leave dogs with us purely from egotistic motives. I don't understand it. I

know all kinds of owners of dogs of all ages and intelligence who behave this way. Up until 20 years ago, people used to say that using a leash is cruel to dogs and that letting dogs run free in the streets was a way of preventing cruelty to animals. People said that it was unmanly for a man to walk a dog on a leash, that only a woman or a "Yeke" [meaning unknown] ought to do it. Today, at least it is not embarrassing. There has been some progress.

**YEDI'OT AHARONOT:** How do you stop the disease?

**Sade:** When there are no more garbage dumps, and dogs are supervised and foxes immunized, then it will be overcome.

**YEDI'OT AHARONOT:** And meanwhile? How do you identify a sick dog?

**Sade:** Rabies is a devilish disease and not always characterized by the same symptoms. For example, the belief that a dog whose tail is drawn between his legs is sick with rabies is sheer nonsense. If saliva drips out of a dog's mouth, although this is a typical sign of rabies, it also characterizes many other diseases. So no one should try to be a veterinarian. If your dog does not eat or drink, you ought to take it right away to the vet. Even a vet sometimes has trouble diagnosing the disease.

**Veterinarians Battle Rabies in Negev**  
54004508 Tel Aviv YEDI'OT AHARONOT in Hebrew  
20 Nov 89 p 9

[Article by Tamar Treblisi]

[Text] The Ministry of Health has placed all the animals in Kibbutz Telalim in the Negev in quarantine after a dead wolf found in the cowshed was discovered to be infected with rabies.

The kibbutz members were asked to remain alert and were advised by representatives of the health ministry about what to do in case of a local outbreak of the disease.

In recent weeks, members of the veterinary service and the health ministry in the Negev have destroyed hundreds of stray dogs and cats following an outbreak of rabies. Last year alone, there were 14 cases of rabies, including 13 in wolves and 2 in dogs.

At a press conference held yesterday by the regional doctor Ilana Bellmaker, the director of the veterinary office in Be'er Sheva, Dr. Moshe Haimovitz, and the veterinarian, Dr. Alice Gross, plans for preventing the spread of the disease and for keeping people from contracting it were discussed. The staff called yesterday for all Negev residents to report immediately to the health department in case of a bite or any contact with an animal infected with rabies or suspected of being infected.

According to Dr. Bellmaker, the last case of rabies in human beings occurred in 1960 when a girl from Moshav Qalahim contracted the disease and died. Last year about 1,000 people who were bitten by dogs contacted the health department, but only 50 of them required immunization. In order to prevent the spread of the disease, over 100 dogs in the area of Wadi Be'er Sheva alone were shot.

Dr. Haimovitz added that in the Negev there has been a population explosion among wolves, and the veterinary department, in cooperation with members of the green patrol, are working to reduce their numbers by means of controlled hunting. At the same time, a study to determine the actual numbers of wolves is being carried out to prevent the total annihilation of this creature.

"From an ethical point of view, it is very difficult to kill animals, but we have no choice if we want to protect Negev residents from the disease," he said. According to him, dog owners who want to get rid of their dogs can bring them to the quarantine station. He pointed out that last year, the IDF [Israel Defense Force] removed 200 dogs from the quarantine station.

Other places where rabies has been discovered include: Kibbutz Ayalot, 'Omer, Maytar, and Nevatim Base.

## MOROCCO

**International Seminar on Locusts Held**  
90WE0088A Casablanca MAROC SOIR in French  
28 Nov 89 p 3

[Article titled: "International Seminar on Outlook for Biological and Chemical Anti-Locust Research Opens in Rabat"; first paragraph is editor's lead]

With S.A.R. [His Highness] Prince Moulay Rachid serving as honorary president, the international seminar on biological and chemical antilocust research started work yesterday in Rabat.

This scientific gathering was organized by the Rabat College of Sciences and the International Conference of French-Language University and Scientific and Technical Institution Officials (CIRUISEF). They were assisted by the Association of Universities Teaching Partially or Wholly in French (AUPELF) and the University of French-Language Networks.

In opening the sessions of this meeting, Mr Taieb Chkili, minister of National Education, indicated that the organization of the seminar was a sign of Moroccan universities' openness to the world—the result of intensive international cooperation and the universities' commitment and determination to integrate themselves into their regional and national socioeconomic environment.

The minister also reminded his listeners that the Academy of the Kingdom of Morocco, in accordance with the royal directives of its founder and protector, his Majesty the King, had devoted several work sessions to the problem. He added that many international bodies (FAO/CIRAD [Center for International Cooperation in Agronomic Research for Development]/PRIFAS/SPAAR [expansions unknown]) held numerous scientific

meetings in 1988 and 1989, defining, for example, priority research themes for the next 10 years, discussing the environmental impact of chemical antilocust measures, or considering the realities and prospects for locust and antilocust research. But the minister asked whether, in the final analysis, that did not mean we are far from knowing everything and that a tremendous effort still remains to be made to achieve a better understanding of the processes resulting in pullulation and migratory locust invasions and to find means of dealing with them.

#### A Plague We Must Mobilize To Fight

Certainly, the minister stressed, that might also appear surprising when one considers how ancient the plague is: everyone knows it is over 5,000 years old. Locust invasions were considered a "plague" in Egypt and it is well-known that locust swarms have been the cause of severe famines since antiquity in arid zones stretching from Mauritania to India, through the Sahel and the Arab Peninsula.

During periods when it is not pullulating, the migratory locust survives in an endemic state in Sahelian and Saharan countries where favorable climatic conditions and a lack of preventive measures causes it to proliferate and swarm, prompting invasions into bordering countries, he said.

Morocco has been invaded in this way five times since the beginning of the century, the minister pointed out. The next-to-last occurrence dates back to 1954, when the invasion spread throughout the Moroccan territory.

Since October of 1987, he said, we have seen a widespread invasion of the whole northern half of the African continent. The invasion spread in 1988, particularly to Morocco, sparking a veritable mobilization of the African countries concerned to combat the scourge. Fourteen million hectares had to be treated with locust pesticides in 1988 at a total cost of about 140 million dollars.

The minister noted that this mobilization of African countries has now taken the form of bilateral or multi-lateral aid among countries concerned. In October-November of 1988, Morocco provided certain countries with which it is friendly with considerable human and material aid. Speaking of aid, Mr Chkili underscored the appeal of His Majesty the King for the formation of a Green Force equipped with appropriate resources for meeting the challenge.

The minister added that the current renewed locust invasion had been forecast by experts for the spring of 1989 but different factors, which specialists will analyze during the seminar, resulted in those predictions being wrong. This proves once again that knowledge of the ravager is still imperfect. New research, he said, must, therefore, be undertaken without delay and our knowledge of locust biology and of measures to eliminate locusts over the (more or less) long-term must be improved.

After sketching the program of the scientific gathering, which constitutes "a contribution of the highest order by countries concerned by locust invasions," the minister indicated that the university is increasingly trying to orient its research toward questions of national interest.

#### Development of International Cooperation

For his part, the rector of Mohammed V University, Mr Abdellatif Ben Abdeljalil, emphasized the scientific scope of the seminar which, he explained, is an important event in antimigratory locust research. Its organization, he further stated, shows the satisfactory level of international cooperation in the matter.

The president of CIRUISEF, Mr Lascombe, stressed that the international seminar was the first event of such scale organized by CIRUISEF, which is a member of the AUPELF networks.

He also pointed out that the organization of the gathering, by the Rabat College of Sciences, demonstrates the determination of Moroccan authorities to intensify the fight against locusts by developing research to that end.

The dean of the Rabat College of Sciences, Mr Abderrahmane Essaid, said that the seminar was a contribution of universities and international experts from various countries to the search for adequate solutions to the problem of locusts. He also described himself as satisfied with the participation of all the Moroccan colleges of science, schools, and scientific institutes concerned.

During this international seminar, whose opening was also attended by General Housni Benslimane, commander of the Royal Gendarmerie, and by college deans and several other personalities, international experts will give courses and conferences and will develop a certain number of themes. These will deal in particular with the biology, endocrinology and ecology of locusts, the chemical and biological means of combatting them, the impact of locust pesticides on the environment, and the outlook for new antilocust weapons.

## PAKISTAN

#### 'Fool Proof' Health Care Policy Advocated

54004702A Karachi DAWN in English 13 Oct 89 p 5

[Text] Prime Minister Benazir Bhutto said on Thursday that her government wanted to give the country a fool-proof health policy envisaging best treatment for all citizens.

She called upon the medical profession to double up its efforts to make the country self-sufficient in advanced medical facilities so that the need for treatment abroad would no longer be a necessity.

She was speaking at the convocation of Khyber Medical College in which 327 medical graduates of year 1987 were conferred degrees by the Chancellor of the Peshawar University, Governor Amir Gulistan Janjua.

Referring to the demand made by the Principal of the college, the Prime Minister said amidst thunderous clapping that the institution had progressed rapidly and deserved to become the country's first university of medical science.

The Prime Minister made fervent appeal to the medical profession to focus their attention on raising the medical professional status by discouraging malpractices.

She also announced a grant for the development of the institution, rupees two lakh for the welfare of academic staff of the college, two lakh for the lower staff and Rs.10,000/- for each of three gold medalists, and Rs.5000/- each for those obtaining lower positions.

The Prime Minister called upon the doctors to pay their full attention to the spirit of their profession.

She spoke very highly of the Khyber Medical College's professional standards which serve as a model for their institutions.

Besides the Governor of NWFP, the convocation was also attended by the Chief Minister Aftab Ahmad Khan Sherpao, Federal Minister, Aitzaz Ahsan, Iftikhar Gilani and other provincial ministers, MNAs, MPAs and high officials of the government. MPAs of the Opposition group were conspicuous by their absence.

Earlier Dr Manzoor Ahmad Khan, Principal of the college presented address of welcome to the Prime Minister.

#### **Cancer Research Foundation Assumes Major Role**

54004704 Lahore *THE PAKISTAN TIMES* in English  
3 Dec 89 p 3

[Text] The Cancer Research Foundation of Pakistan founded in 1980, has aimed at discovering a best possible treatment for cancer which is increasing alarmingly in our country. This was stated by CRFP organiser Prof. Dr Khalida Usmani.

CRFP has no organised data that how much people are suffering from cancer, but Dr. Khalida told this reporter that she received five or six breast cancer cases on every operation list. She could not collect data about the victims of cancer since Pakistan did not have any official organisation which specially could work on cancer.

Dr. Usmani who has also a team of young doctors, social workers, and students, has launched a campaign to educate the people about the growing phenomenon of cancer. She started her campaign by delivering lectures at girls' schools and colleges.

Prof. Khalida said she was ready to deliver lectures about breast cancer in any women's college.

She intends to build a research centre for cancer with an estimated cost of Rs. 100 million. She received donations of Rs. 500,000 from a few philanthropists One, Chaudhry Ashraf donates Rs. 25,000 during the congress

held on October 12, in Lahore, while the Speaker of the National Assembly Malik Meraj Khalid donated Rs. 5,000.

The Cancer Research Foundation of Pakistan will play an unique role in the efforts to build up defences against the scourge of cancer, she said and added that CRFP would serve the purpose of a forum to not only join together the local efforts in fighting cancer, but also interface these with those of foreign researchers through seminars and workshops. The CRFP would thus act as a focal point for flow of information in the field of cancer research within the country and abroad, she said.

Dilating upon the aims of CRFP, Dr. Khalida said that CRFP would not duplicate the work of any other organisation in Pakistan in view of its unique mandate aimed at meeting the most important and pressing need of the hour.

Dr. Khalida was the only participant of 12th course of the Union International for Cancer Control (UICC), to set the honorary membership of CCRF (Chinese Cancer Research Foundation), held in Beijing in May 1987.

Mr. Hui Zhang, Vice-President of Chinese Cancer Research Foundation (CCRF) had assured Dr. Usmani his full support in the promotion of friendship and exchange between CCRF and CRFP during the course.

In recognition of the dedicated services rendered by Dr. Khalida in the field of cancer control, Professor Salam, the renowned scientist had donated equipment for research on cancer worth Rs. 2.5 lakh for CRFP.

The CRFP, first of its kind in the country for conducting research on fatal disease of cancer is still awaiting a plot by the Punjab Government. She revealed that the Foundation required 40 kanals of land for its complex which would consist of a research unit, laboratories, data banks, library, administrative block and hospital for cancer patients.

'But it is still a dream'—Farkhanda Hashmee.

#### **Health Care for Everyone Promised by Year 2000**

54004704B Karachi *MORNING NEWS* in English  
7 Dec 89 p 3

[Text] The PPP Government is conscious of its obligation to provide complete health care to the countrymen. Immediately on the assumption of office of the Government, the Party initiated a plan to launch the national policy so that every citizen could get health care by the year 2000.

This was explained by the Federal Minister for Health, Social Welfare and Special Education Syed Amir Haider Kazmi in an interview here last night.

The Minister said that a span of ten years is a short period for the Government to achieve such a large task. He said apart from the evolution of a draft for the health

policy by the experts and public representatives at the Federal and Provincial level, a comprehensive national drug formulary has been introduced which would ensure the availability of medicines in the Federal Government hospitals.

"The 430 medicines included in the formulary are most effective and prevalent in the advanced countries. Their use in the hospitals would effect the prices of other drugs available in the market," he added.—APP.

### Formula Suggested for Immunization Program Success

54004703B Karachi DAWN in English 19 Nov 89 p 6

[Text] A 10-point formula has been suggested to medical officers working in the rural areas of the division to tighten the grip over the six killer diseases of children and to make the Expanded Programme of Immunisation (EPI) a success.

The main emphasis in the formula is on preserving the vaccine on strictly scientific lines, and on educating mothers to get their children vaccinated according to the schedule of vaccination.

Speaking on Saturday at the concluding session of the six-day workshop here aimed at involving doctors of the THQ Hospital and rural health complexes in the campaign of immunisation launched under the guidance of the World Health Organisation (WHO), Gujranwala division, Health Services Director, Dr A. Rasheed Khan, expressed the hope that the participants would work hard to achieve the target of reducing the rate of Mortality among children by bringing the six deadly diseases—polio, tetanus, whooping cough, measles, TB and diarrhoea—under control with the help of his suggestions.

Dr Mohammad Ishaque Khan, District Health Others, Dr Mohammad Anwar, Medical Superintendent of the Allama Iqbal District Headquarters Hospital, and Dr Zafar Iqbal, Principle of the local Paramedical School, also spoke on the occasion.

### Hazardous Use of Pesticides

54004703A Lahore VIEWPOINT in English  
9 Nov 89 pp 9-12

[Article by Anwaar Sayyid: "Pesticides: Gambling With People's Well-being"]

[Text] Like many Third World countries, Pakistan imports massive quantities of chemical pesticides each year. More pesticides are today used in developing and under-developed countries for agricultural purposes than in most advanced nations.

Since the early 1970s, use of insecticides in Pakistan has become more and more common, and an ever increasing variety is entering the market ever year. This is clearly correlated to a growing awareness in the West about the

potential dangers of these pesticides to human life in the short term and to the environment in the longer run.

As a result, the large companies involved in the manufacture of these pesticides have discovered that the market for their dubious products is shrinking every day in the U.S., Canada, Australia and Europe. Therefore, they have begun a campaign to increase supplies to the Third World, where governments, unlike those of more developed nations, rarely impose the bans so despised by those multinational industries, and where awareness among farmers, and the general public, about the hazards posed by these chemicals is, at best, marginal. So, in fact, the Third World has become a convenient dumping ground for insecticides which the West refuses to have anything to do with, allowing pesticide manufacturers to keep their profits high, without having to engage in expensive research for making safe insecticides.

Today, out of the 32 chemical pesticides with the largest sales during the 1960s and 1970s, 21 have been banned in the U.S., and two others are available for use only in strictly controlled circumstances. Many of these appear on the list of 109 insecticides approved by the Government of Pakistan. Public concern about the use of insecticides on fruit, vegetables and grain crops, as well as growing concern about the environment, has led to a rapid decrease in the U.S. and Canada of the use of pesticides, and a rise in the availability of so-called 'organic' foods, i.e., those grown without the use of any pesticide or chemical fertilizers.

What then are the hazards associated with chemical pesticides? How do they effect human life, crop production and the environment? Not surprising, to kill the pests which can cause large-scale damage to crops, the insecticides used have to be strongly toxic in nature. Therefore, in the first stage of the process, the danger is to the people, almost invariably poor field-workers, most of them illiterate, who carry out the actual spraying of the crops. Though some of the insecticides sold in the Pakistani market give adequate warning that protection measures must be taken when using the product, these instructions, often written in the smallest of print, rarely reach the workers who must use them. As a result, at least 57 cases of death due to the inhalation of these substances have been recorded in various parts of Pakistan, and, without doubt, there must be hundreds of others which have never been reported. On a recent visit to Sialkot district, several cases were discovered of people suffering from serious lung ailments or from diseases which doctors can rarely diagnose due to the lack of available information about the link between pesticides and human health.

The danger is not restricted to the people involved in the spraying process, but extends to those living in the immediate vicinity. Water supplies—for example, those from wells close to the fields which have been treated with pesticide—or vegetables, fodder, etc. growing nearby can become contaminated and carry the poison to everyone drinking the water or eating the edible

products. Some insecticides sold in solid form (a type often used for rice crops) to be strewn on the ground, and some particularly potent insecticides such as Sevidol (used against stem borer insects), can also gradually seep down to the level of the water table, particularly if spraying is carried out just before or during the rainy season, so contaminating water sources.

Children, both in the early years of life and while in the foetal stage, are particularly susceptible to toxic substances from insecticides, and can be quickly affected if they inhale the chemical or if it reaches them through food or water. Children have been born with brain damage, or diseases of the respiratory tract, almost certainly due to exposure to toxics such as DDT, which has been banned in almost every Western country for the last decade, but is used in Pakistan to treat rice and crops, as well as some others. It is used, moreover, in dangerously high concentrations, of up to 7.4 kg per hectare, while the largest permissible dose of DDT in New Zealand, one of the few remaining countries which still permits its use (though only in unusual conditions), is 3.6 kg. The so-called 'drin' group of chemicals, sold in Pakistan under the brand names Azodrin, Aldrin and Dieldrin, and used on a wide range of crops, have also been associated with damage to brain cells and cancer. Although research is badly needed into this matter on a governmental scale, there appears to be a frightening rise in the incidence of leukaemia (blood cancer) in several rural areas. For example, in villages near Leaha, out of 41 children born in 1985, at least two have been diagnosed as having childhood leukaemia (a percentage of nearly 1 percent) and more are likely to develop the illness at some stage of their lives.

Quite apart from the fearful harm done to the people who come into contact with the substances being sprayed, the poison also affects people who consume crops treated with some potent medications. Wheat and maize, like many other grains, retain certain toxins more or less permanently—and small amounts of these poisons reach people consuming these crops. Wheat treated with Heptachlor, or rice with Diazinon, are among the crops particularly likely to retain the pesticides.

In the U.S., Canada, Australia and Europe, insecticides used on food crops are extremely rigidly controlled, and must pass stringent tests to ensure that there is no likelihood of residues from pesticides being retained within the grain and reaching the consumers. Unfortunately, in Pakistan, no such restrictions exist and farmers are free to use practically any chemical they choose, in very high concentrations, on their edible crops. Many of the pesticides currently used today in this country to combat pests such as stem fly on wheat (insecticides used Aldrin, Dialdrin, etc.), stem borer on rice (DDT, BHC, Diazinon, etc.) or borers on jowar (Dimecron) have been banned in the West for a considerable time for use on food crops, and if utilized, are only employed in limited amounts under tightly controlled conditions. Again, often farmers here do not discriminate between pesticides used on edible crops and non-edible ones such as

cotton. This means that consumers have no way of knowing whether they are taking in hazardous toxins, which may increase their susceptibility to cancer.

Though, mercifully, sprays used on fruits and vegetables are not as potent as those used in some other Third World countries, more lethal insecticides for these purposes are coming in—and will become a major health risk if precaution is not exercised, since vegetables in particular are high retainers of pesticides.

There is also growing evidence that these chemicals may not be as useful to crop production as is commonly assumed. The use of insecticides over a period of three or four years often leads to pests becoming resistant to certain kinds of chemicals, which means that more potent insecticides then have to be employed to combat them. This phenomenon has already been encountered in dealings with household pests (as some housewives may themselves have experience), and today, cockroaches in many regions remain unaffected by sprays which in the past would have destroyed them.

More and more potent, and consequently more hazardous, chemicals must therefore be used to deal with pests—particularly those such as caterpillars and boll-worms (sundi) which figure so prominently on our television. Researchers in the U.S. in fact have warned that, if great care is not exercised, we may soon breed pests which refuse to die.

Also, insecticides do not discriminate between the insects they kill—and by destroying useful insects which naturally prey on pests responsible for much crop damage, exercising far more effective, cheaper and safer pest control than any which comes in a can, they result in the appearance of new kinds and greater quantities of pests, which must then be dealt with using a variety of insecticides.

Crop quality may also be affected by the prolonged use of pesticides, resulting in crops less able to withstand even marginal attacks by pests, and causing genetic changes in certain kinds of crops. In addition, long usage of pesticides may eventually damage the top soil, causing it to lose some of its fertility, particularly in areas of alluvial (from rivers) soil. This means farmers must use expensive chemical fertilizers, which also deplete the nutritive substances of the soil.

Then, of course, there is the environmental issue—one which many people are already familiar with. Chemicals used in many insecticides contribute to the deterioration of the ozone layer, which may cause universal health hazards. Incidences of acid rain have also been linked with pesticide use in some areas.

But what is clear is that this problem is not an easy one to deal with, particularly in a country where at least 30 percent of total crop production is damaged between harvesting and consumption, meaning that few further losses can be sustained. Pests, both air-borne and those on the ground, are a very real threat to agriculture, and

can cause damage on a devastating scale. The climate conditions in Pakistan also contribute to crop damage by pests. 'Khareef' crops (rice, maize, millets, cotton, sugarcane) planted from April to June, most often just before the monsoon season, especially in the case of rice, are particularly likely to be attacked by pests such as stem borers, bollworms, caterpillars, meley bugs, etc., which thrive in the damp conditions, which is also the egg-laying season for certain types of moths.

#### Carefully Planned

Steps to control the pesticide menace will therefore have to be carefully and systematically planned. As a first step, the Agriculture Ministry should immediately obtain a list of banned agricultural substances from agencies in the West—a task which should not prove too taxing even for our bureaucracy. It should then establish which of these chemicals is used in dangerous quantities in the pesticides selling under a variety of brand names in the Pakistani market—and either ban or limit the use of these substances, especially where food crops are involved. Restrictions should also be put on the import of such hazardous pesticides, and only those found to be safe should be allowed into the country.

Advertisements on television, and in newspapers, radio, etc., must also carry a health message (similar to that accompanying ads for medicines) warning users to adequately protect their eyes, nose, mouth, and all exposed skin—on hands, face, etc. Field workers must be informed that a piece of cloth wound around the nose and mouth, as is pictured in some advertisements, provides practically no protection at all. Officers of the Agriculture Ministry, which in the Punjab provides soft credit to farmers for the purchase of pesticides, must also ensure that protective masks, goggles and gloves are readily available in all regions and are properly used. Alongside advice on pesticide use, they must also ensure that farmers are told about potential hazards, and know which substances are safe for use on food crops.

Education should be provided through the media to farmers on good agricultural methods, which help reduce pest damage. Khareef crops should be sown before the rainy season begins to discourage pest attacks. The ground, when it is prepared for sowing, must be thoroughly tilled to remove all previous roots and debris which provide an excellent breeding ground for pests. Certain crops, for example, Kansas-200 rice, should be imported, and local varieties developed, which have proven greatly resistant to damage from some pest varieties. Any spraying carried out should be used as a preventive measure, before pests have had a chance to attack, so that the substances used can be less potent. Water, fodder, vegetables, etc., should never be exposed to pesticides sprays.

If the administration seriously works on such methods, and encourages local research in the use of safer pest-control technology, there is little doubt that much can be done to curb the use of hazardous pesticides. Until such

measures are taken, however, we will continue to gamble with the well-being of our people, and systematically poison our soil, our earth and ourselves.

*(Professor Anwaar Sayyid lectures on agronomy at the University of Wisconsin, USA. He is currently involved in a two-year research project for Sydney University on the use of chemical fertilizers and pesticides in developing and under-developed countries.)*

#### The Dirty Dozen

The following pesticides kill more than pests:

1. Parathion: Parathion may be responsible for fully half of the pesticide poisonings in the world today. So acutely toxic that a teaspoon spilled on the skin can be fatal, this extremely hazardous organophosphate is widely used instead of the more environmentally persistent organochlorides.
2. 2,4,5-T: One-half of the defoliant "Agent Orange" sprayed by the U.S. military on vast areas of Vietnam, 2,4,5-T is widely used as a herbicide today. It is contaminated with dioxin, the most toxic chemical known on a per-weight basis and suspected of causing birth defects and spontaneous abortions.
3. Paraquat: A frequent method of suicide in the Third World, paraquat has no known antidote. Extremely poisonous when ingested, inhaled or absorbed through the skin, this potent weedkiller kills by suffocation. Autopsies of victims of paraquat poisoning reveal lungs rendered useless with extensive scar tissue.
4. DDT: The book "Silent Spring" revealed DDT's devastating effect on wildlife. Extremely persistent in the environment, DDT is present in virtually all foods and living things, its chronic toxicity increased by accumulation in body fats at each level of the food chain. Uncontrolled worldwide use of DDT has helped to breed pesticide-resistant mosquitoes, causing a dramatic resurgence in malaria.
5. Aldrin Dieldrin/Endrin: Acutely and indiscriminately toxic, the "drins" kill beneficial insects along with target pests. They also pose serious chronic hazards, including cancer in test animals. Environmentally persistent, they have been found in rain water, ground and surface water, soil and food crops.
6. Chlordimeform (Galecron): Produced primarily for use on cotton in the Third World, Chlordimeform is notorious for industry's 1976 "field experiment" performed on six Egyptian teenagers to determine its effects on humans. Toxic if swallowed or absorbed through the skin, this organochlorine may also cause severe bladder irritation.
7. DBCP: DBCP, a carcinogen, has been directly linked to sterility in male workers manufacturing or applying the pesticide. This powerful soil fumigant rapidly makes

its way into ground-water supplies and has been detected in wells throughout the U.S., forcing their closure and restricting water supplies.

8. Chlorda/Heptachlor: From the bodies of Antarctic seals to contaminated milk in Hawaii, residues of these two extremely persistent organochlorine pesticides have been detected virtually everywhere on earth. They accumulate in human fat cells and are suspected carcinogens.

9. HCH/Lindane: HCH, a suspected carcinogen, is aggressively sold in the Third World, though it has never been registered for use in the United States. Lindane, HCH's most toxic isomer, is the active ingredient in many head lice control products, even though it can cause nerve damage in humans and animals, and is widely used in agriculture.

10. Ethlene Dibromide: EDB is an extremely potent carcinogen and mutagen that also damages male and female fertility. A fumigant used widely on soil, grains and citrus fruits, EDB penetrates human skin, rubber and plastic, and the skin of many crops, and has contaminated groundwater throughout the U.S.

11. Camphechlor (Toxaphene): One of the world's most widely used pesticides during the 1970s, Camphechlor can be absorbed through the skin and is often fatal if swallowed. Extremely toxic to fish, it disperses over large areas once released into the environment and accumulates in the fat cells of animals.

12. Pentachlorophenyl (PCP): PCP a highly hazardous organic compound, is toxic to the liver, kidney and central nervous systems. Used widely as a wood preservative, for termite control, and as an herbicide, it can be absorbed across the skin, the lung, and the gastrointestinal lining.

*—The "Dirty Dozen" campaign is a public education project of the Pesticides Action Network (PAN) International.*

#### Free-for-all

Despite the fact that almost everyone who matters knows about the harmful effects of the indiscriminate use of insecticides, it is a free for all in the market.

Mr Muhammad Akram Khan, a trained entomologist who is also managing partner of a fumigation and disinfection firm, claims that his is among the few registered firms in the insecticides spraying business.

"Perhaps," he says, "there are 16 to 17 registered firms. The rest, and there are many, are under no supervision at all." There are also few qualified entomologists with these firms.

The implication of this is that the private sector is almost free to use what it wants, and since a majority of villagers and farm workers who do the spraying are not literate, there is no knowing of the havoc being done in the rural areas.

Government does only aerial spraying: the rest of the work is in private hands. They are not too bothered, according to Mr Akram Khan, about whether the multinationals are using the Third World as a dumping ground for insecticides that are no longer in use in the West.

He thinks the most harmful practice is the use of long-acting pesticides—which should be sprayed only on non-edible crops—not on fruit and vegetables. Many of the cases of food poisoning that one hears can be attributed to eating vegetables that were contaminated by pesticides.

Mr Akram Khan points out that even in insecticides, there is adulteration. "You get what are known as No 2 insecticides, and these are naturally even more lethal."

He says that there is no effort to publicise the precautions that must be exercised in the use of insecticides. "Apart from the effect on health, we have also disturbed our natural flora. Pest damage has increased because of the resistance developed as a result of indiscriminate use of pesticides. Now more insecticides are needed.

Mr Akram Khan says that even where safety equipment is used by field workers, it is inadequate. For instance, you have gas masks—but without their canister accessory, which is necessary to absorb the harmful vapours; without it, the gas mask is just a face covering. Special dresses are also necessary, and these too are not available here and not used.

Mr Akram Khan suggests that as a first step, the Government should make it mandatory for all firms doing insecticide spray work to be registered. Second, there should be some effort to ensure that due care is exercised during spraying work. In the long run, of course, he thinks that organic insecticides should be popularised.

Each year between 1 to 1.5 million people worldwide suffer from the effects of pesticide poisoning and even without a major industrial disaster some 20,000 die.

And while the developing countries of the Third World consume only 15 percent of the pesticides used around the world each year, more than half of the injuries and about three quarters of the deaths occur here.

## SUDAN

### Health Ministry Reports Reduction in Infant Mortality

90WE0082 Khartoum AL-SUDAN AL-HADITH in Arabic 4 Nov 89 p 6

[Article: "Diarrhea Fighting Plan To Reduce Infant Mortality Rate: 17 Percent Reduction in Infant Mortality Rate; Child Nutrition Improved; Mothers Educated"]

[Text] Reports prepared at the Ministry of Health indicate that children are likely to experience repeated bouts

of diarrhea between their first and fifth years of life and that such cases of diarrhea lead to death and malnutrition. The report confirmed that in 1 year approximately 100,000 children die because of diarrhea. It was for this reason and to reduce the mortality rate that the Ministry of Health put into effect a plan to fight diarrhea. AL-SUDAN AL-HADITH met with Dr Hilri Ukani, the project director.

Dr Hilri Ukani said that the aim of the plan is to achieve a 17 percent reduction in the mortality rate among children under the age of five by the end of 1992. This is to be done by improving therapy and by putting emphasis on the oral intake of liquids to replenish the body's supply of fluids and on proper nutrition. This can be accomplished by means of low-cost efforts which would take place in people's homes. For example, sufficient amounts of pure water are to be provided; the percentage of salts, which are administered with liquids, is to be increased and made available; and the number of health facilities with trained medical staff is to be increased.

#### Strategies of the Plan

Dr Hilri says, "To achieve the goals of the national plan for fighting diarrhea five basic strategies are followed. The first one is treatment of diarrhea cases. Treatment for diarrhea and dehydration cases and improving nutrition for children would lead to a reduction in the mortality rate. Besides, mothers are being taught the importance of giving their children additional liquids if they show symptoms of diarrhea. Mothers are also being taught to take their children to health centers for treatment, and they are being taught to continue feeding and nursing their children during those children's bouts with diarrhea. They are also being taught to feed their children more than usual after the children recover from diarrhea."

Mr Hilri affirmed that breastfeeding was a must during a child's fourth and sixth months of life. He said that a mother was to continue breastfeeding her child until the end of that child's second year. He also said that breastfeeding was to be supplemented by an abundance of nutritious foods. Physical hygiene and sanitation in the home must also be upgraded, and hands must be washed very carefully after bowel movements, before handling food, and before feeding children.

Dr Hilri went on to say that one of the strategies for fighting diarrhea was to pay attention to environmental health, to the task of providing sufficient amounts of clean water, and to immunizing children against measles. It has been established that an immunization campaign is a significant strategy in reducing the rate of diarrhea cases."

#### A Plan To Fight Diarrhea

The director of the diarrhea fighting project says that the department will set up an oversight and information finding unit as well as a supply unit to distribute and

produce the salts which are administered with liquids to replenish the body's fluids. The unit for the oral intake of liquids to replenish body fluids will be strengthened, and internal performance as well as central plans will be revised as needed. Detailed annual plans for health districts will be set forth, and regional workshops on health education will be prepared and held for workers from all sectors. Sanitary water will be provided, and the dangers of diarrhea will be made clear. Reports and specific instructions for the prevention of diarrhea and for early treatment of cases in the home will be delivered.

## TUNISIA

#### Aphthous Fever Outbreak Prompts Vaccination Drive

90OA0231A Tunis LE RENOUVEAU IN French  
10 Dec 89 p 3

[Text] The foot-and-mouth disease that is rife in sheep-breeding operations and that caused a high mortality rate among suckling lambs has no effect on the consumption of mutton inspected by health authorities in municipal slaughterhouses. All Tunisian livestock, or 5.5 million sheep, will be vaccinated between now and mid-January 1990 and Tunisian veterinarians are in full control of the situation. These are the most important conclusions of an in-depth investigation conducted among the departments concerned.

There were actually two diseases that occurred one on top of the other:

1) A seasonal disease well-known to breeders under many names—Boumrira, Fares, Bachma—occurring chiefly in the spring and whenever feed type is abruptly switched. Propitious climatic conditions for the disease arose during a spring-like fall in which the grass that causes the disease (enterotoxemias) was able to sprout.

2) These enterotoxemias set the stage for a second viral illness. Cyclical in Tunisia (occurring every 5 or 6 years), aphthous fever usually struck cattle first and took an inapparent and not very harmful form in sheep.

Tunisian cattle breeders, used to the cyclical disease, vaccinate their herds as a preventive measure but sheep breeders, for whom repercussions of the disease were slight, are not in the habit of vaccinating their herds as is done in most countries of the world.

What is different about this year is that the disease broke out first among sheep, in herds that had already suffered enterotoxemias and were at the height of the lambing season.

Symptoms of the disease in adult ewes were fleeting: a slight limp that disappeared after 4 or 5 days. But unfortunately, probably via mothers' milk, young lambs 3 to 45 days old suffered a much more severe case due to their organism's inability to defend itself properly, resulting in high mortality rates among suckling lambs.

**Kef, Then Kairouan, Sidi Bouzid, Gafsa, Kasserine, and Siliana**

The disease first broke out in Kef, then appeared within a week in Kairouan, Sidi Bouzid, Gafsa, Kasserine and Siliana (a few cases.) That is, in transit regions with a high sheep-population density, which very likely favored the spread of the disease. So far, some regions have been spared despite the ease with which herds travel between governorships for the weekly markets.

**Tunisian Veterinarians Have Situation in Hand**

As soon as the first symptoms reminding technicians of foot-and-mouth disease were discovered, the Ministry of Agriculture sent samples to the Pirbright control laboratory in Great Britain to obtain the official diagnosis and the viral-strain type. The viruses has several serotypes and it is very important to know the strain type in order to combat it. Preliminary information sent by the English laboratory confirmed the clinical diagnosis already pronounced by Tunisian veterinarians.

The illness was aphthous fever, a highly contagious disease. Immediately after the first symptoms appeared, the veterinarians put together a series of measures to combat the disease and to set up a vaccination plan for reported areas of outbreak, which could probably spread unless the disease recedes.

A 24-hour mobilization of the ministry's regional departments is now under way. The first pure measures were prophylactic in nature and consisted of limiting the movements of herds and any gathering of animals in fairs or weekly markets. Veterinary vaccination teams are at work in most of the regions concerned: The ministry's reserve stock of vaccine was used first to deal with the situation quickly and vaccines ordered have already arrived.

The veterinary departments have the situation in hand. Alarmist rumors about the consumption of mutton are baseless, especially as all commune slaughterhouses are inspected by the veterinary staff of the ministry and the

towns. In no case does this animal disease affect the health of humans; therefore, there is currently no risk in eating legally slaughtered mutton. Consumers are thus once again asked to shun underground slaughterhouses, whose products are sold openly.

There are 5.5 million head of sheep in Tunisia. The Ministry of Agriculture hopes to be able to vaccinate this large herd within a month in order to protect this source of wealth and lessen economic damages.

**Agricultural Ministry Communique**

*90OAO231B Tunis LA PRESSE DE TUNISIE in French 10 Dec 89 p 7*

[Text] Initial suspicions of Ministry of Agriculture veterinarians about the possible presence of sheep catarrhal fever—known as "Glouton" (bluetongue disease)—for which the Tunisian-laboratory diagnosis was negative have been ruled out. We have just learned that a London laboratory asked to look into the matter has determined the presence of type-O foot-and-mouth disease, which especially afflicts lambs 3 to 45 days old.

The Ministry of Agriculture has published the following communique on the subject:

Although foot-and-mouth disease does not usually affect sheep, it, nonetheless, spread during this lambing season to young lambs with inadequate immunity, which explains the deaths reported in some regions.

The Ministry of Agriculture has taken the following measures to deal with the spread of the disease:

1) isolation of affected herds; 2) avoidance of groups of animals, including in marketplaces; 3) the start of a vaccination drive against the disease by veterinary departments.

In addition, the Ministry of Agriculture asks all breeders to follow the preventive measures suggested by regional veterinary departments, while pointing out that this has no effect on consumption of meat inspected by health authorities in slaughterhouses.

## CANADA

**British Flu Virus Affecting Ontarians**

54200021A Toronto *THE TORONTO STAR* in English  
15 Dec 89 p A2

[Article by Lisa Wright: "Ontarians Laid Low by Flu Bug as British Virus Hops Overseas"]

[Excerpts] [Passage omitted] The virus that has both children and adults sniffing, sneezing, wheezing and coughing throughout Ontario has been dubbed the "English flu" after the epidemic sweeping Britain.

Fortunately, this flu bug is not biting as many people across the province as it has overseas, but people should still be cautious, said Dr Richard Schabas, medical officer of health for Ontario.

Doctors advise lots of bed rest and a balanced diet to shake the virus, which seems to linger only a few days. [passage omitted]

Walk-in medical clinics in the Metro area say they are swamped daily with patients complaining of flu symptoms such as fever, coughing, sore throat, upset stomach, general weakness and aching muscles.

"It's really going around. It's even making some of the staff sick," said Faith Robert, a receptionist at one of Toronto's Health First clinics.

Many doctors' offices are attending to a surplus of cold and flu patients, but that's normal for this time of year, said Anne Moon, spokesman for the Toronto public health department.

**Seven BC Fisheries Closed Due to Poisons in Shellfish**

54200017 Toronto *THE GLOBE AND MAIL* in English 24 Nov 89 pp A1, A2

[Article by Murray Campbell]

[Excerpts] The federal government has not decided whether to compensate hundreds of commercial fishermen affected by the closing yesterday of large areas of British Columbia's coastal seabed because of high levels of pollution in some shellfish.

Fisheries and Oceans Minister Thomas Siddon said yesterday the normal government policy is not to compensate those affected by health alerts. But he said he wants time to consider whether "the circumstances of the present situation may or may not fit with policy."

Seven zones from Vancouver Island to Prince Rupert were ordered closed after federal tests of shellfish showed high levels of dioxin and furans, toxic chemical compounds produced by B.C. pulp mills.

The chemicals, which can cause cancer and birth defects, come from the chlorine-bleaching process used at pulp and paper mills.

The seabed closings, which affect only crab, prawn and oyster fishing, will likely last several years. Similar closings have been imposed in the past year in Howe Sound, north of Vancouver, and the Prince Rupert area.

However, Mr. Siddon, who is MP for the B.C. riding of Richmond, said he has no immediate plans to prosecute pulp and paper companies that are discharging the toxins into coastal waters. He said the minute quantities of toxins contained in effluent are difficult to measure even though the accumulation in fish can be measured. [passage omitted]

A year ago, a study of B.C. Environment Ministry records by two University of Victoria law professors concluded that repeat offenders of pollution laws were not being charged.

**Rabies Cases in Windsor, Essex County at Record Levels**

54200018 *Rabies Cases in Windsor, Essex County at Record Levels*

[Article by Vernon Smith: "Threat of Rabies at Record Levels"]

[Excerpts] Rabies cases in Essex County have reached an all-time high and Windsor is home to more rabid skunks than any municipality in the county, a veterinarian with Agriculture Canada says.

Dr. Gord Doonan, the district veterinarian with Agriculture Canada, said the number of animals contracting rabies has almost doubled in Essex County this year and skunks are the biggest offenders.

There has been a total of 77 cases of rabies in animals—including 63 skunks—reported in the county this year, up from last year's total of 43.

Nine foxes have tested positive for rabies along with three dogs, one cat and one bat. Almost 60 people have been given precautionary treatment for the disease by the Windsor-Essex County Health Unit. [Passage omitted]

Doonan said the number of skunks that actually have the disease is much higher.

Since wild animals are not tested for the disease unless they come into contact with domestic animals or humans, there is no way to know how many have rabies.

"But there is no doubt in my mind that there are literally hundreds of skunks involved with rabies in Windsor," he said.

Doonan said studies and several reports of skunks with no fear of people in Windsor indicate the disease has reached epidemic proportions.

"The statistics are misleading because these are the only animals that have been tested," Doonan said. "We've had several calls about staggering skunks and that leads us to believe this is widespread."

"We're getting more reports from Windsor than the rest of the county combined. It's a problem everywhere, but now most of it is coming from Windsor and directly around it."

Prior to 1988, the number of rabies cases in the county ranged between zero and three.

The only exception was in the 1940s when "street rabies," reached epidemic proportions. That outbreak was believed to be caused from dogs imported from the United States.

#### Dioxin Count Rising in Fraser Heron Eggs

54200022A Vancouver *THE SUN* in English  
13 Dec 89 p B4

[Article by Glenn Bohn: "Dioxin Count Going Up in Fraser Heron Eggs"]

[Excerpts] Dioxin levels in Great Blue heron eggs on the Fraser River estuary are going up, but federal government researchers don't know why.

Phil Whitehead, a toxic-chemicals expert with the federal environment department's Canadian Wildlife Service, says the type of dioxin detected in the heron eggs is produced by pulp mills.

The short name for that dioxin is 2, 3, 7, 8-TCDD—the most poisonous of 75 dioxins and a proven cause of tumors, birth defects and other health problems in laboratory animals.

Since 1983, when dioxins were first discovered in heron eggs at what is now Pacific Spirit regional park, dioxin levels there have been climbing.

Five years ago, the TCDD levels in the shells were 15 parts per trillion.

By 1988, the levels had climbed to almost 100 ppt and Whitehead confirmed the levels are still going up. [Passage omitted]

The nearest pulp mills are in Howe Sound and on Vancouver Island.

But Whitehead said government researchers are uncovering "a growing body of evidence" that suggests dioxins and other chlorinated organics can be transported long distances in rivers.

He pointed to pulp mills hundreds of kilometres up the Fraser River, at Kamloops, Quesnel and Prince George. He noted that another possible source is the two paper-recycling plants that dump their effluents into the Lower Fraser, because they use paper that may be contaminated with dioxins. [passage omitted]

Fred Mah, toxic-chemical coordinator for Environment Canada's water-quality branch, said fish and sediment samples have been collected in the lower Fraser, but the test results may not be known until next fall.

The samples were taken at Hope and near the two paper-recycling plants.

The climbing dioxin levels in Great Blue heron eggs were disclosed on Monday by Pacific Report, a CBC-TV program.

The program suggested dioxin levels were "skyrocketing" in the Fraser estuary, but Mah said: "We don't have any data. We don't know."

Whitehead would not disclose what the 1989 levels were in heron eggs at Pacific Spirit park. He said this year's study has not been reviewed by scientists who are shared with other government agencies, so it can't be made public, but he confirmed that a figure offered Pacific Report was "very close."

It reported the levels were about 150 ppt.

In 1987, the U.S. Environmental Protection Agency made public a massive study that confirmed TCDD is a byproduct of the chlorine bleaching process. The U.S. government agency also disclosed that trace quantities were being detected in paper products, including tampons, coffee filters and milk cartons.

CWS researchers began collecting eggs in 1986 from a Great Blue heron colony near the Fletcher Challenge pulp at Crofton on Vancouver Island.

In 1987, wildlife biologists counted 57 heron nests at the Crofton colony, but not a single heron chick survived. According to the CWS, the dioxin levels found that year at Crofton were among the highest ever reported for wild birds—more than 200 ppt.

Whitehead said Tuesday that dioxin levels at Crofton have since gone down. He noted Fletcher Challenge has taken steps to reduce the quantity of dioxins being produced as a byproduct of its chlorine bleaching process, as have some other B.C. pulp mills.

However, in the two years since dioxins were first detected in B.C. seafoods, the net being cast by government scientists has become much larger.

Last May, the provincial and federal governments warned the public to "moderate their consumption" or avoid eating certain fish species near Interior pulp mills.

#### DENMARK

##### Greenland's Public Health System Critized

90WE0077A Nuuk *GRONLANDSPOSTEN* in Danish  
8 Nov 89 p 3

[“Public Health System Must Be Cleaned Up”; first paragraph is *GRONLANDSPOSTEN* introduction]

[Text] Around 60 health professionals demonstrated when the minister arrived in Nuuk.

Nuuk—"The public health system must be cleaned up now, no to administration from abroad, think health—think Greenlandic" was one of the slogans on the signs used in Tuesday's demonstration when Minister of Health Elsebeth Kock-Petersen arrived in Nuuk, a demonstration in which approximately 60-70 health professionals participated.

The airplane had just landed, and Moses Olsen, the member of the home rule government responsible for social affairs, who was dressed in [traditional] sealskin clothes, together with a number of officials, went out to the airline passenger terminal to welcome the Danish minister of health to Greenland, where the temperature was 10 degrees [Celsius] when she landed.

And out came the nylon-stockinged minister from the aircraft and greeted her Greenlandic colleague and came into the airport terminal where approximately 70 health professionals stood waiting, holding signs aloft.

Rose Marie Elsner, a nurse at the Queen Ingrid Hospital, was ready with the megaphone:

"As citizens, we want to have input into the way the public health system develops. We know what we need and we can assist if we're allowed to. What about [public] health centers? We need [public] health centers which will care for young and old, those who are ill and those who are well."

"The time is past when the authorities can make decisions about our health, we want to have input too. The plan for the public health system will involve us, it will not just deal with us and the system."

"Come up here now and involve the people of Greenland as the plan is developed. Draw on the professional experience we have up here and listen to our needs."

"We have just as much right to health whether we live here in Nuuk or in Attu. We will not be administratively directed by officials who are far from the reality [of our daily lives]."

Ester Hammeken, the town's only midwife, also wanted to say something into the megaphone. "We can no longer put up with the abuse we live with. As this town's only midwife, I work almost round the clock. It is totally unacceptable for the public health system not to be able to afford to hire an additional midwife."

Minister of Health Elsebeth Kock-Petersen took the megaphone and thanked the demonstrators for their welcome.

"As a representative of the Danish Government, I shall now meet with the Greenlandic Government, and at that time we shall thoroughly discuss the various objectives and hopes for the Greenlandic public health system."

As the minister spoke, Moses Olsen, the member of the home rule government responsible for social affairs, said that one of the major areas to be discussed with the

minister would have to be moving training programs for health professionals, and he also said that there would have to be frank talk about various public health system matters.

#### Vaccination Campaign Proposed in Greenland

90WE0077B Nuuk GRONLANDSPOSTEN in Danish  
10 Nov 89 p 6

[“Vaccination Against Hepatitis; Country's Medical Officer Hopes Fight Can Get Underway Next Year”; first paragraph is GRONLANDSPOSTEN introduction]

[Text] The executive board of Greenland's public health system has proposed that the public health system begin vaccinating against hepatitis, hepatitis B in medical jargon, as a part of the children's vaccination program. Jens Misfeldt, the country's medical officer, would like to see the vaccination program get underway as early as next year.

During the first year, according to preliminary plans, all children 5 years of age and under will be vaccinated, and vaccinations will be offered to all 12-year-olds. Keeping practical arrangements in mind, the vaccination proposal will be sent out for reactions to district physicians and public health officers.

"The hepatitis B we're talking about is transmitted through the blood and in sexual contact," Jens Misfeldt said. Hepatitis B is common in Greenland, just as it is common in various other places in the world, such as Alaska and among Canadian Eskimos.

"A person can indeed be a carrier of this illness and not become sick," Jens Misfeldt said, and a person can pass it on without knowing it.

A 1973 study of 2,900 healthy Greenlanders showed that 7.1 percent had the hepatitis B antigen in their systems, and more recent studies have shown that this figure has not changed significantly. A 1985 study in Sisimiut showed an average carrier frequency of 11.5 percent, with many carriers in the 15-to-19-year-old age group.

Since August 1987, the office of the chief medical officer has reviewed studies made of blood donors and pregnant women and in connection with studies of sexually transmitted diseases. By the end of 1988, 3,589 people had been tested, and of those studied, 5.1 percent were carriers of hepatitis B. Young men in the 20-to-24-year-old age group had the largest carrier percentage—11.8.

#### Meningitis Spreading In West Zealand

90WE0106C Copenhagen BERLINGSKE TIDENDE  
IN Danish 13 Jan 90 p 4

[“10 Meningitis Cases”]

[Text] Since the turn of the year, 10 cases of the contagious disease meningitis have been confirmed in West

Zealand County. The cases have been spread over the entire county, but within the last two days four cases have been reported in the Hong-Gorlev area.

According to Friday's RADIOAVISEN, the disease has claimed the life of one child. The district doctor in Soro says that parents should be alert so that the children can receive treatment as soon as possible. Call a doctor if the child has fever or feels any discomfort, is the recommendation.

## IRELAND

### Europe Concerned Over Ireland's Bovine TB Record

54500034 Dublin *IRISH INDEPENDENT* in English  
14 Oct 89 p 6

[Article by Dick Cross]

[Text] European farmers are worried about the poor record of their Irish counterparts in coping with the crisis of Bovine TB eradication, a top Irish-born Brussels official said in Kenmare yesterday, when he spoke to delegates to the Irish Veterinary Association annual conference.

Dr Joe Caffrey told reporters that Ireland would have to come up with a fast response if it was to bring Bovine TB into line with the European criteria before international borders opened up.

Dr Caffrey said that after five unsuccessful years of intensive EC funding of our TB eradication programme, Irish farmers could expect not much more from the Community in that direction.

Two things were needed to totally eradicate the disease here—farmer co-operation and a system of accurate testing and, he added: "In my opinion we have not got farmer co-operation in this country in the past."

He said the new EC rule would be that if disease was causing a barrier to trade, then the barrier should disappear if the disease was eradicated. After 1 January 1993, there would be no internal borders, no customs posts, no barriers and no men around with peaked caps.

Ireland's TB eradication programme had simply got nowhere after 35 years, and we had been killing between 30,000 and 60,000 reactors a year. By contrast, Bovine TB had been virtually eradicated in most EC countries, said Dr Caffrey.

He told reporters in Kenmare there was a fear in other member states about our position here. The certainty was that the EC would not pick up the tabs for any new eradication programme and it would fall back on the farmers themselves.

A call for a change in Irish Wildlife Legislation to allow for the elimination of badgers in certain selected areas of

the country, was made by the Irish Veterinary Association President, Frank McRory.

He said there should be a realistic approach to the controlled elimination of badgers in areas known to be endemically infected with TB.

## NORWAY

### Yearly Winter Influenza Outbreak Hits

36390115 Oslo *AFTENPOSTEN* in Norwegian  
12 Dec 89 p 4

[Article by Aslaug Bissegberg: "Winter Influenza is Coming"]

[Text] Two people have been admitted to Ullevaal hospital with an influenza strain related to the earlier Hongkong flu. This flu virus has already claimed a life in Great Britain.

The first of the two Norwegian flu patients was probably infected in England, while the other cannot have been infected abroad. These two cases of type A, subtype H<sub>3</sub>N<sub>2</sub> are the only ones which have been reported to the State Institute of Public Health (SIF).

"Every single year an influenza virus spreads over the entire Northern Hemisphere. But we never know beforehand which virus type is coming, says Liv Flugsrud.

"The influenza virus is most widespread among school children and young people. But it is also the physically weak groups such as the elderly, people suffering from lung cancer, heart patients, and babies who can become seriously ill," she says.

"There is no reason to panic here in Norway," says Flugsrud. A few months ago vaccines were distributed. The country's doctors are informed of which groups are the most at risk, and we expect they have been vaccinated.

A 16-year-old girl from London was the first victim of this epidemic, reports AFTENPOSTEN's London correspondent. The authorities calculate that approximately 750,000 British citizens have been infected by this year's influenza virus, and the the figure will grow drastically.

### Soldier's Death Attributed to Meningitis

54002534 Oslo *AFTENPOSTEN* in Norwegian  
15 Jan 90 p 4

[Unattributed article: "Soldier Dies of Meningitis"]

[Text] Meningococcus-bacteria was the reason that 19-year-old non-commissioned officer training academy cadet Trond Teigen from Stranda died at the central hospital in Akershus Saturday evening. A total of 700

## WEST EUROPE

JPRS-tep-90-002  
7 February 1990

soldiers and cadets at Trandum camp have now been vaccinated against meningitis, and their conditions are being monitored closely.

Trond Teigen was a student at the non-commissioned officers school for cavalry, Sonnenfjeld Dragoon Regiment at Trandum. He became ill with symptoms similar to those normally attributed to influenza early last week. Then the condition worsened and he was admitted to the hospital on Thursday, where the dangerous disease was diagnosed.

## SPAIN

**Hepatitis Seen as Major Health Problem**

90WE0073C Madrid *DIARIO 16* in Spanish  
1 Dec 89 p 15

[Text] One out of every four nursing personnel workers in Spanish hospitals will contract type B hepatitis during the course of professional practice, according to a disclosure made at the national meeting held by this group in Logrono.

The group in question has become the leading one at risk in an epidemic that has already stricken over 700,000 persons in our country. The high incidence rate is due basically to the frequent handling of blood and hematic products, as well as the contact with bodily fluids of individuals already infected.

Other groups included in those at risk are dentists and policemen, especially those rendering service in jails, which have become veritable focal points for propagation in Spain.

The experts consider type B hepatitis 100 times more contagious than AIDS, which explains the large number of victims. Every year 2 million stricken persons die from it throughout the world.

Of the individuals contracting type B hepatitis, 75 percent are not aware that they are suffering from the disease. It develops subclinically, and ends up producing secondary diseases stemming from the initial infection, such as cirrhosis or cancer of the liver.

The spread of type B hepatitis has become one of the major health problems in Spain.

## TURKEY

**Hepatitis Epidemic in North, Southeast**

35540003 Istanbul *TERCUMAN* in Turkish  
6 December 1989

[Editorial Report] Istanbul TERCUMAN in Turkish on 6 December 1989 carries on pages 3 and 10 a report on a hepatitis epidemic which started among elementary and secondary school students in Trabzon, where 15 students in the Cavusoglu secondary school and the Gazi

elementary school tested positive and are now under medical care. In the Southeast Anatolian cities of Diyarbakir, Sanliurfa, Mardin, and Siirt, 882 people tested positive and were hospitalized.

## UNITED KINGDOM

**Chief Medical Officer Presents Annual Report**

54500031 London *THE TELEGRAPH* in English  
9 Nov 89 p 6

[Article by Peter Pallot]

[Text] The one-shot vaccine which protects against measles, mumps and German measles is being so widely used that measles could soon be eradicated, the Chief Medical Officer, Sir Donald Acheson, said yesterday. In his report on the nation's health in 1988, Sir Donald said measles was predicted to increase again.

"But if the present enthusiastic use of the vaccine is maintained, there is a reasonable chance that the cyclical series of epidemics of measles, with all their attendant misery which have occurred in this country since time immemorial, will cease."

The vaccine, known as MMR, was launched by Mrs Currie, then Health Minister, in October, 1988.

To stop German measles and mumps requires about 90 percent uptake and to stop measles requires 95 percent immunity in the population.

The report says these targets should be achieved.

Evidence that the public has switched to safer sexual practices in light of the AIDS scare is contained in the report.

Cases of sexually transmitted diseases totalled 620,000 and declined for the first time since 1962.

The decrease was more marked in men—6 percent—than the 2 percent decline in women, reflecting greater concern about AIDS among men.

Sir Donald calls for greater efforts to help schoolchildren, teenagers and young adults resist or give up smoking as it is a habit rarely taken up in adult life.

Deploring the illegal sale of cigarettes to children, Sir Donald said only one in four youngsters who bought tobacco was challenged.

He stressed the dangers to the unborn of pregnant women smoking and the dangers to children of parents smoking at home.

In childhood diseases, the report comments on progress made in genetic and congenital disorders, low birth-weight, pre-maturity and childhood cancers.

But Sir Donald said: "This group of illnesses once seemed unyielding to intervention, but sustained

progress during the past 10-20 years has shown new ways towards prevention and treatment in some of them and, in a few instances, cure."

### Health Service Reports Increasing Patient Backlog

54500032 London *THE DAILY TELEGRAPH* in English 21 Oct 89 p 4

[Article by Peter Pallot]

[Text] The number of people waiting for hospital treatment is increasing despite an intensive drive to cut lists. There were 704,700 people waiting for in-patient treatment in England at 31 March this year, a rise of 13,600 in 6 months, the Department of Health said yesterday.

Claiming an increase in efficiency, the Department said that in the 6 months 1,330,000 cases were treated, nearly 2 percent more than in the previous half-year.

The latest figures are 6 percent less than the record high of March 1979, when wards were closed by strikes in the "winter of discontent."

The figures point to the London regions as those with the greatest number of patients waiting more than 12 months.

The North-East Thames area is the worst with 38 percent of all patients on the waiting list for over a year. It also has the greatest total of patients in the queue—78,100, a rise of nearly two thousand in a year.

South-East and South-West Thames both have 32 percent of patients on their lists for more than 12 months. Mersey region has the fewest waiting a year, 16 percent.

Mr Mellor, Health Minister, said: "Although these figures show an encouraging increase in activity, they are disappointing overall in showing a small but regrettable growth in waiting times.

Mr John Yates, a Birmingham health management expert, had investigated the 22 districts with the longest waiting lists. This work had reduced by a quarter numbers waiting more than a year.

He found that average length of stay for operations varied from 3 days in the most efficient health service districts to 10 days in the least efficient. The average time a surgical bed stayed empty varied from under 1 day to 6 days.

Ministers concluded last July that if under-performing hospitals were brought up to average, 300,000 more operations a year would be possible.

### 'Longstanding Illnesses' Reportedly on Increase

54500040 London *THE DAILY TELEGRAPH* in English 13 Dec 89 p 5

[Text] There was an increase in adults and children with a long-standing illness, from 21 percent in 1972 to 33 percent in 1987.

Although there have been year-to-year fluctuations, the general trend had shown a fairly steady increase in all age groups reporting a long-standing illness.

Those reporting acute sickness in the two weeks before interview increased from eight percent in 1971 to 13 percent in 1979 and was 14 percent in 1987.

The figures are based on people's subjective assessments of their own and their children's health.

In 1987, 18 percent of women and 13 percent of men had consulted a general practitioner compared with 16 percent of men and 11 percent of women in 1986.

There was a small increase in the average number of consultations made per person per year.

In 1987 men had, on average four consultations with a GP in a year and women had six.

On private medical insurance, nine percent of people were covered, compared with seven percent in 1982.

As in previous years, medical insurance cover showed marked variation between socio-economic groups.

In 1987, over 25 percent of people in the professional groups were covered compared with three percent or fewer in the manual groups.

People who reported limiting chronic sickness were less likely to have private medical insurance than those with no long-standing illness or one that did not limit their activities.

In 1987, 20 percent of adults in England and Wales had lost all their natural teeth compared with 22 percent in 1985.

This downward trend occurred among men and women in all age groups.

The proportion with no natural teeth in Scotland declined from 32 percent in 1985 to 29 percent in 1987.

In 1987, 61 percent of adults wore glasses or contact lenses, a similar proportion to that found in previous years. Women were more likely than men to wear corrective lenses, and for both men and women the likelihood increased sharply over the age of 45.

Nearly everyone aged 65 or over, men and women alike, wore glasses.

- **Sterilisation and infertility:** Figures showed that 22 percent of all women aged between 16 and 49 had been sterilised or had partners who were sterilised for contraceptive reasons.